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1964 REPORT OF

EGG PRODUCTION TESTS

UNITED STATES AND CANADA

- **RANDOM SAMPLE EGG PRODUCTION TESTS**

  TWO–YEAR COMBINED SUMMARY, 1962-63 AND 1963-64

  RANGE GROUP RANKINGS, 1963-64

- **STANDARD EGG LAYING TESTS, 1963-64**

AGRICULTURAL RESEARCH SERVICE • U.S. DEPARTMENT OF AGRICULTURE

This publication is based upon recommendations of the National Committee on Random Sample Poultry Testing and the Council of American Official Poultry Tests. Information in the report was compiled by the Poultry Research Branch, Animal Husbandry Research Division, Agricultural Research Service, from data supplied by the Test Supervisors and the Council of American Official Poultry Tests. The statistical analysis for the Combined Summary was made by Biometrical Services, ARS. The publication of this report should not be construed as implying approval or endorsement by the U. S. Department of Agriculture of any of the stocks tested.

FOREWORD

Egg Production Tests are designed to provide a reliable guide for poultrymen, hatcherymen, and breeders concerning the performance of stocks offered for sale by breeders and hatcherymen. This publication contains data on traits of economic importance compiled from results of all official Random Sample and Standard Egg Laying Tests in the United States and Canada.

The publication is divided into three separate categories: 1 - Two-Year Combined Summary of Random Sample Test data for the 1962-63 and 1963-64 test years; 2 - Range Group Ranking for the 1963-64 test year; 3 - Official Standard Egg Laying Test data for the 1963-64 test year. The first deals with data obtained from the 1962-63 and 1963-64 Random Sample Egg Production Tests. These data have been treated by acceptable statistical procedures and permit direct comparison of stocks that are entered in different tests. The second deals with the 1963-64 Random Sample Egg Production Test results and shows, by "range group rankings", the performance of each entry as compared to other entries in the same test. The third section concerns records compiled by stocks in the 1963-64 Official Standard Egg Laying Tests.

CONTENTS

Information on performance of stocks in Chicken Meat Production Tests can be secured by writing direct to the tests, as follows: Arkansas Meat Performance Egg Phase and Reproduction Test, Dept. of Animal Industry and Veterinary Science, University of Arkansas, Fayetteville, Arkansas; Maine Production and Broiler Test, Maine Dept. of Agriculture, Division of Animal Industry, State House, Augusta, Maine.

Information on performance of turkey stocks in Turkey Meat Production Tests can be secured by writing to the Poultry Research Branch, Animal Husbandry Research Division, Agricultural Research Center, Beltsville, Maryland 20705, and requesting publication ARS 44-13, Turkey Performance Tests.

Alberta Random Sample Egg Production Test
R. H. McMillan, Alberta Department of Agriculture, Edmonton

Arizona Random Sample Test
Ernest L. Parker, Arizona State University, Tempe

Arkansas Random Sample Commercial Egg and Controlled Environment Test, Fayetteville
L. T. Lankford, University of Arkansas, Box 391, Little Rock 72203

British Columbia Random Sample Egg Production Test, Abbotsford
W. H. Pope, B. C. Department of Agriculture, Victoria

California Official Random Sample Egg Laying Test
Emery A. Johnson, Route 3, 2718 No. 99 Highway, Modesto 95351

Central Random Sample Egg Production Test
M. S. Mitchell, Poultry Division, Canada Department of Agriculture, Ottawa

Florida Random Sample Test
A. W. O'Steen, Chipley 32428

Iowa Multiple Unit Poultry Test
Elston P. Erickson, Iowa Poultry Association, National Plans Division Board,
535 E. Lincolnway, Ames 50011

Kansas Multiple Unit Test
Albert W. Adams, Kansas State University, Manhattan 66504

Minnesota Random Sample Egg Production Test, Stillwater and St. Cloud
Robert E. Moehrle, Department of Agriculture, Dairy and Food, State Office Bldg., St. Paul 55101

Missouri Official Random Sample Poultry Test
Charles W. McElyea, Box 109, Mountain Grove 65711

New Brunswick Random Sample Egg Production Test
Bernard R. Bartlett, Department of Agriculture, Fredericton

New Hampshire Multiple Unit Egg Production Test
W. C. Skoglund, Department of Poultry Science, University of New Hampshire, Durham 03824

New Jersey Random Sample Egg Laying Test
John J. Dowling, Jr., Rutgers University, New Brunswick 08903

Central New York Official Random Sample Poultry Test, Horseheads
Dean R. Marble, Poultry Department, Cornell University, Ithaca 14850

North Carolina Random Sample Egg Laying Test, Salisbury
G. A. Martin, Poultry Science Department, North Carolina State University, Raleigh 27607

Pennsylvania Random Sample Laying Test
Paul J. Turek, Route 2, Harrisburg

Rhode Island Random Sample Laying Test
M. R. McClung, University of Rhode Island, Kingston 02881

Tennessee Random Sample Laying Test
O. E. Goff, Poultry Department, University of Tennessee, Knoxville 37916

Texas Random Sample Egg Production Test
Bill H. Doran, Texas A & M University, College Station 77841

Wisconsin Random Sample Egg Production Test, Oregon
Arnold Guthrie, Department of Agriculture, 4802 Sheboygan Ave., Madison 53702

TWO-YEAR COMBINED SUMMARY

INTRODUCTION

This summary includes the two-year combined results of the Random Sample Egg Production Tests conducted in the United States and Canada during 1962-63 and 1963-64. The entries in the various tests start with a random sample of hatching eggs or chicks of the stock being tested. The samples are drawn by prescribed methods to insure that each entry is typical of the stock it represents. All entries within a test are treated the same with respect to housing, feeding, management, and disease control with the objective of avoiding differences in performance due to environment.

All tests follow these basic principles in their operation. However, there are differences between tests and between years, including climatic conditions and other environmental factors, which affect the results. For this reason, direct comparison of the results of two stocks in different tests or different years may be misleading.

The primary purpose of this summary is the presentation of test results in a manner that will support sound evaluation of all stocks tested. To accomplish this, the results of all tests are combined, by stocks and by years, with adjustments for test and year differences and for variation in the amount of information per stock with accepted statistical procedures. The results of these computations are published as the regressed mean of each trait for each stock.

Errors of two kinds influence the results of even the most carefully designed and operated tests. The first kind of error is the chance deviation or unavoidable "sampling error" made when a small sample of eggs or chicks represents an entry. The other kind of error is due to uncontrolled or unknown environmental differences between entries that occur in spite of all efforts to treat all entries within a given test as nearly alike as possible. The differences between the results for two entries in a single test for a single year may be due to these chance variations rather than to a real difference in the performance capabilities of the two stocks. The effect of such errors in comparing stocks can be materially reduced by basing the comparisons on the combined results of several tests over two or more years. If all entries compared were entered in the same tests in both years, the simple averages could be compared directly without adjustment.

The performance data (regressed means) reported in this summary are derived from the results reported by the individual tests for each of the past two years. It is unlikely, however, that these means for any stock, even though entered in only one test each year, will coincide precisely with the two year average performance data as published by the test. The variations are due to adjustments for test differences, year differences, the number of tests and years entered, and the number of replicates per test. These statistical adjustments allow predictions to be made of what the average performance would have been for each stock if all stocks had been entered in all tests each year.

The statistical treatment applied to the test data is designed to reduce the influence of non-genetic variations but this cannot be accomplished perfectly. Consequently, estimates or predictions of performance cannot be made with absolute precision. Reliable predictions, within prescribed limitations, can be made as to whether a difference in the reported performance of two stocks represents a real difference in their performance. These predictions involve the use of the confidence interval figures which have been computed for each trait or performance factor reported.

HOW TO TELL WHETHER DIFFERENCES ARE REAL

The range of the confidence limits represents the amount of difference in the performance of two stocks that may be due to chance. If the confidence limits for two regressed means overlap, the two means are not significantly different at the 5% level. If the confidence limits for two regressed means do not overlap, the odds are at least 19 in 20 that a real difference exists in the performance of the two stocks.

The following is a partial page of Regressed Means and 80% Confidence Limits as they might appear in this publication.

All Stocks Entered, with Regressed Means and 80% Confidence Limits for each Trait

AGE AT 50% PRODUCTION (Days)		EGG PRODUCTION				INCOME OVER FEED AND CHICK COST ($)		FEED PER 24 OZ. OF EGGS PRODUCED (lbs.)		EGG WEIGHT (oz.)		LARGE AND EXTRA LARGE EGGS (%)		BODY WEIGHT (lbs.)		STOCK CODE
		HEN HOUSED (No.)		HEN DAY (%)												
RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	
	173		199		63.7		2.08		4.20		24.3		67.9		4.6	
175	177	204	209	64.8	65.9	2.21	2.34	4.30	4.40	24.5	24.7	69.7	71.5	4.7	4.8	995
	175		208		66.5		1.99		4.10		24.3		68.1		4.1	
177	179	215	222	67.9	69.3	2.12	2.25	4.21	4.32	24.7	25.1	70.1	72.1	4.3	4.5	996
	181		194		59.2		1.91		4.31		25.1		74.6		4.8	
184	187	200	206	60.3	61.4	2.06	2.21	4.42	4.53	25.4	25.7	76.6	78.6	5.1	5.4	997
	181		189		59.0		1.67		4.44		24.7		71.6		4.8	
183	185	196	203	60.1	61.2	1.81	1.95	4.57	4.70	25.1	25.5	74.1	76.6	4.9	5.0	998
	166		236		69.9		2.49		3.98		23.7		60.5		4.4	
169	172	241	246	71.2	72.5	2.62	2.75	4.08	4.18	23.9	24.1	62.4	64.3	4.6	4.8	999

* *If the confidence limits for two regressed means overlap, the two means are not significantly different at the 5% level.*

The use of the above data as a means of evaluating different stocks and traits can be illustrated as follows:

For the trait "Hen Housed Egg Production" the confidence limits for Stock 995 (199 to 209) do not overlap the confidence limits of Stock 999 (236 to 246). Therefore, the regressed means of these two stocks (204 and 241 eggs, respectively) are significantly different at the 5% level for this trait. However, when comparing Stock 995 with Stocks 996, 997, and 998, we find that the confidence limits of this stock (199 to 209) overlap the confidence limits of each of the other three stocks (208 to 222, 194 to 206, and 189 to 203, respectively). Thus the regressed mean of Stock 995 is not significantly different from the regressed means of Stocks 996, 997, and 998 for this trait.

Another example can be shown by using the trait "Feed Per 24 Ounces of Eggs Produced." Stock 995, with confidence limits of 4.20 to 4.40, is significantly more efficient for this trait than Stock 998 which has a higher confidence limits (4.44 to 4.70) that do not overlap those of Stock 995. Likewise, when comparing Stock 995 with Stock 999 (confidence limits of 3.98 to 4.18) we find that these two sets of confidence limits do not overlap. However, in this example, Stock 995 is significantly less efficient than Stock 999 for this trait. In comparing Stock 995 with Stocks 996 and 997, we find that the confidence limits for all three of these stocks overlap and consequently these three stocks are not significantly different in this trait at the 5% level of probability.

The range of the confidence limits will not necessarily be the same for two different stocks that have the same regressed mean. The number of locations in which a stock is entered, the number of replicate pens per location, the number of years entered and the accuracy involved in adjusting for location and year effects all have a bearing on the range of the confidence limits for each individual regressed mean.

EXPLANATION OF INCOME FIGURES

The "Income Over Feed and Chick Cost" figures reported in this summary represent the sales value of the eggs produced and of the hens at the end of the test minus the cost of the chicks and the feed used during the growing and laying periods. These figures may be useful in comparing the overall performance of stocks but they should not be considered as predictions of "profit" to be obtained under commercial operations. The "income" figures should be reduced by other costs, such as labor, building and equipment depreciation, vaccination, litter, interest, taxes and insurance, to approximate profits that might be expected under commercial conditions. Surveys conducted among commercial producers indicate that such costs may range from $1.00 to $2.00 per pullet housed.

Although the average chick price is reported for each stock, this value cannot be appropriately used to convert the "Income Over Feed and Chick Cost" figure to an income over feed cost figure. The average chick price shown is a simple unadjusted average of the prices reported by the entrant for his entries in the various tests, and is not directly comparable to chick cost included in "Income Over Feed and Chick Cost."

STOCKS SHOULD BE COMPARED FOR ALL TRAITS

In the use of this report for the evaluation of the overall performance of the various stocks, all traits should be considered. The values reported for "Income Over Feed and Chick Cost" represent a composite of several traits combined as determined by the economic conditions of the areas in which the tests are located. The conditions under which the stock is expected to perform in commercial production may differ from those prevailing at the tests and such differences should be taken into consideration. For example, a poultryman whose local market pays unusually good premiums for large and extra large eggs should place more emphasis on egg size in his evaluation of stock than those located in areas where such premiums are not available. The local market preference for brown or white shells should also be taken into account. Traits related to interior egg quality which affect the grade are of greatest importance in areas where prices are based on quality standards.

Each person should study his local needs and conditions and then place the appropriate emphasis on the performance traits that are of greatest importance to his own situation. A productive and profitable stock for one poultryman under one set of conditions may not fit the needs of another poultryman under a different set of conditions.

A brief explanation of the statistical procedures used in computing the regressed means and confidence limits may be found on pages 29 through 36.

EXPLANATION OF TERMS AND ABBREVIATIONS

Stock: A term used to identify a specific breeding combination of chickens. These breeding combinations may include pure strains, strain crosses, breed crosses, incrossbreds, or combinations thereof.

Kind of Stock:

AW	Austra White	RIR	Rhode Island Red	BX	Crossbred
BA	Black Australorp	RIW	Rhode Island White	IN	Incross
BPR	Barred Plymouth Rock	WA	White Austra	INX	Incrossbred
CG	California Gray	WL	White Leghorn	LX	Line Cross
LS	Light Sussex	WPR	White Plymouth Rock	PS	Pure Strain
NH	New Hampshire	WW	White Wyandotte	SX	Strain Cross
		Syn.	Synthetic	MSC	Multiple Synthetic Cross

STOCK CODE	BREEDER'S NAME AND ADDRESS	BREEDING	STRAIN OR TRADENAME	NO. ENTRIES	AVG. CHICK PRICE (¢)	MORTALITY			
						GROWING (%)		LAYING (%)	
						RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS
317	Allstate Hatchery Willmar, Minnesota	WL SX	LX 360	3 2	38.5	4.3	3.7 5.0	10.3	8.9 11.7
339	Allstate Hatchery Willmar, Minnesota	WL SX	LX 363	2 2	42.0	4.1	3.5 4.6	10.2	9.0 11.5
5	Ames In-Cross Des Moines, Iowa	INX	Ames 424	16 11	37.0	3.8	3.1 4.5	9.0	7.7 10.3
8	Ames In-Cross Des Moines, Iowa	INX	Ames 505	10 6	40.0	2.9	2.3 3.6	7.1	5.9 8.4
537	Andrews, J. J. R. R. #3, Chilliwack, B. C.	CG x WL BX	Polka Dot	10 3	32.0	2.4	1.9 3.1	8.1	6.8 9.5
578	Andrews, J. J. R. R. #3, Chilliwack, B. C.	WL SX	Andrews	6 2	32.0	3.4	2.7 4.1	8.1	6.8 9.5
145	Animal Research Institute Ottawa, Ontario	WL PS	Random Bred	9 2	40.7	4.2	3.5 5.0	14.9	13.2 16.7
570	Animal Research Institute Kentville, Nova Scotia	WL PS	Kentville R. B. C.	8 1	40.0	3.7	3.0 4.4	9.2	7.8 10.6
10	Anthony, Geo. M. & Sons Strausstown, Pennsylvania	WL SX	Anthony	15 7	38.1	2.9	2.3 3.6	12.4	10.9 13.9
138	Arbor Acres Farm, Inc. Glastonbury, Connecticut	WL SX	Queen	59 27	34.8	3.4	2.9 3.9	12.1	11.0 13.2
232	Avery, C. T. & Son Colrain, Massachusetts	RIR PS	Flock Mating	5 4	37.0	5.1	4.4 6.0	13.2	11.6 14.9
307	Babcock Poultry Farm, Inc., Ithaca, New York	WL SX	Babcock B-300	68 30	40.1	3.2	2.7 3.7	8.4	7.4 9.3
306	Babcock Poultry Farm, Inc., Ithaca, New York	CG x WL BX	Babcock B-370	18 8	38.6	3.0	2.4 3.7	8.5	7.3 9.8
342	Balfour Guthrie & Co., Ltd. Fresno, California	CG x WL BX	Rialto Gray	2 1	25.0	3.2	2.7 3.7	10.1	8.9 11.4
293	Ball Poultry Farm Owego, New York	WL SX	Ball 551 A	5 3	38.0	4.1	3.4 4.9	12.0	10.4 13.6
351	Baum, Adam Locke, New York	WL x CG BX	B x W 267	1 1	34.0	3.6	3.2 4.0	10.1	9.1 11.1
20	Beamsdale Farm Lawndale, North Carolina	WL SX	Beamsdale 66	6 2	36.0	3.5	2.8 4.2	10.6	9.1 12.1
22	Booth Farms & Hatchery Clinton, Missouri	INX	Booth Line 351	2 1	40.0	3.2	2.7 3.7	9.2	8.0 10.5
329	Booth Farms & Hatchery Clinton, Missouri	INX	Booth Line 352	2 1	34.0	3.3	2.8 3.8	11.1	9.8 12.4
230	Brender's Leghorns Ferndale, New York	WL SX	Money Maker #2	20 10	38.3	3.4	2.8 4.1	10.1	8.8 11.5

* *If the confidence limits for two regressed means overlap, the two means are not significantly different at the 5% level.*

All Stocks Entered, with Regressed Means and 80% Confidence Limits for each Trait *(Continued)*

AGE AT 50% PRODUCTION (Days)		EGG PRODUCTION				INCOME OVER FEED AND CHICK COST ($)		FEED PER 24 OZ. OF EGGS PRODUCED (lbs.)		EGG WEIGHT (oz.)		LARGE AND EXTRA LARGE EGGS (%)		BODY WEIGHT (lbs.)		STOCK CODE
		HEN HOUSED (No.)		HEN DAY (%)												
REGRESSED MEAN	80%* CONF. LIMITS	REGRESSED MEAN	80%* CONF. LIMITS	REGRESSED MEAN	80%* CONF. LIMITS	REGRESSED MEAN	80%* CONF. LIMITS	REGRESSED MEAN	80%* CONF. LIMITS	REGRESSED MEAN	80%* CONF. LIMITS	REGRESSED MEAN	80%* CONF. LIMITS	REGRESSED MEAN	80%* CONF. LIMITS	
	172		215		69.2		1.70		4.36		23.9		59.0		4.2	317
176	180	222	229	70.6	72.0	1.86	2.02	4.48	4.60	24.2	24.5	61.8	64.6	4.5	4.8	
	172		215		68.6		1.77		4.40		24.4		65.1		4.2	339
176	180	222	229	69.9	71.2	1.93	2.09	4.53	4.66	24.7	25.0	68.0	70.9	4.5	4.8	
	185		210		68.5		1.85		4.28		24.8		69.8		4.3	5
189	193	216	222	69.6	70.7	2.00	2.15	4.39	4.50	25.1	25.4	72.2	74.6	4.5	4.7	
	172		210		65.9		1.78		4.69		24.9		70.3		5.9	8
176	180	216	222	67.2	68.5	1.93	2.08	4.80	4.91	25.2	25.5	72.9	75.5	6.2	6.5	
	172		211		66.2		1.74		4.39		24.0		62.0		4.3	537
176	180	218	225	67.5	68.8	1.89	2.04	4.49	4.59	24.3	24.6	64.5	67.0	4.5	4.7	
	172		218		68.6		1.81		4.27		24.3		62.5		4.4	578
176	180	224	230	70.0	71.4	1.96	2.11	4.38	4.49	24.6	24.9	65.2	67.9	4.6	4.8	
	180		192		65.3		1.24		4.79		23.7		57.9		4.5	145
184	188	199	206	66.6	67.9	1.40	1.56	4.91	5.03	24.0	24.3	60.7	63.5	4.7	4.9	
	171		210		67.0		1.66		4.45		24.6		66.4		4.4	570
175	179	216	222	68.4	69.8	1.82	1.98	4.57	4.69	24.9	25.2	69.2	72.0	4.6	4.8	
	173		212		68.5		1.72		4.42		24.7		67.8		4.4	10
176	179	218	224	69.7	70.9	1.86	2.00	4.51	4.60	25.0	25.3	70.0	72.2	4.6	4.8	
	175		217		70.4		2.00		4.25		24.9		69.4		4.1	138
178	181	221	225	71.3	72.2	2.12	2.24	4.33	4.41	25.1	25.3	71.4	73.4	4.3	4.5	
	179		200		65.9		1.34		5.14		24.3		65.9		5.8	232
183	187	207	214	67.3	68.7	1.49	1.64	5.26	5.38	24.6	24.9	68.5	71.1	6.0	6.2	
	167		228		70.7		2.07		4.25		24.7		68.5		4.5	307
170	173	233	238	71.5	72.3	2.19	2.31	4.33	4.41	25.0	25.3	70.5	72.5	4.6	4.7	
	164		225		69.7		1.83		4.43		24.3		63.0		5.1	306
167	170	231	237	70.8	71.9	1.96	2.09	4.52	4.61	24.6	24.9	65.3	67.6	5.3	5.5	
	166		211		68.1		1.75		4.44		24.2		63.2		4.7	342
170	174	217	223	69.4	70.7	1.90	2.05	4.58	4.72	24.6	25.0	66.1	69.0	5.0	5.3	
	171		205		66.3		1.63		4.50		24.7		67.9		4.3	293
175	179	212	219	67.7	69.1	1.78	1.93	4.62	4.74	25.0	25.3	70.5	73.1	4.5	4.7	
	172		213		68.1		1.77		4.40		24.6		66.3		4.6	351
176	180	219	225	69.3	70.5	1.91	2.05	4.54	4.68	24.9	25.2	69.3	72.3	4.9	5.2	
	170		217		68.9		1.81		4.38		23.9		58.9		4.0	20
174	178	224	231	70.3	71.7	1.97	2.13	4.50	4.62	24.2	24.5	61.6	64.3	4.2	4.4	
	171		215		68.3		1.86		4.21		24.6		64.4		4.2	22
175	179	221	227	69.6	70.9	2.01	2.16	4.34	4.47	24.9	25.2	67.3	70.2	4.4	4.6	
	171		210		67.6		1.74		4.38		24.3		63.5		4.4	329
175	179	217	224	69.0	70.4	1.90	2.06	4.51	4.64	24.6	24.9	66.4	69.3	4.7	5.0	
	176		211		67.8		1.80		4.36		24.7		67.6		4.2	230
179	182	216	221	68.9	70.0	1.93	2.06	4.45	4.54	25.0	25.3	69.8	72.0	4.4	4.6	

* *If the confidence limits for two regressed means overlap, the two means are not significantly different at the 5% level.*

All Stocks Entered, with Regressed Means and 80% Confidence Limits for each Trait *(Continued)*

STOCK CODE	BREEDER'S NAME AND ADDRESS	BREEDING	STRAIN OR TRADENAME	NO. ENTRIES	AVG. CHICK PRICE (¢)	MORTALITY			
						GROWING (%)		LAYING (%)	
						RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS
506	Buchanan's Poultry Ranch Haney, B. C.	WLx (WLxBA)	Kanaka White	10 3	30.7	3.9	3.2 4.7	11.7	10.2 13.3
571	Buchanan's Poultry Ranch Haney, B. C.	WLx (WLxBA)	Monarch	6 2	31.0	3.5	2.8 4.2	11.1	9.6 12.7
561	Burpee, A. K. Woodstock, N. B.	WL x LS BX	Burpee's #31	4 1	32.0	3.6	3.0 4.3	12.3	10.8 13.8
544	Burpee, A. K. Woodstock, N. B.	WLx (RIRxLS)	Burpee's #321	6 2	32.0	3.1	2.5 3.8	11.1	9.6 12.7
283	Cameron Leghorn Res. Farm Beaver Springs, Penna.	WL SX	Cameron #924	8 5	32.0	3.3	2.6 4.0	9.5	8.1 11.0
292	Carey Farms Marion, Ohio	WL SX	Carey E. J.'s	4 3	39.0	4.0	3.4 4.7	11.2	9.7 12.7
357	Carey Farms Marion, Ohio	WL SX	Carey New E. J.'s	1 1	39.0	3.6	3.2 4.0	10.3	9.3 11.4
304	Cashman Leghorn Farm Webster, Kentucky	WL IN	Astronauts	4 3	40.5	3.4	2.9 4.1	10.1	8.7 11.6
31	Cashman Leghorn Farm Webster, Kentucky	WL IN	Hi-Cash	25 12	39.9	3.6	3.0 4.3	11.2	9.9 12.5
343	Childers Hatchery Santa Ana, California	INX	EGGSecutive II	2 1	32.0	3.5	3.0 4.0	11.3	10.0 12.7
558	Clark, H. R. Burtt's Corner, N. B.	WL SX	Clark's #57	8 2	35.0	3.1	2.5 3.8	7.1	5.9 8.4
508	Clark's Poultry Farm Brandon, Manitoba	RIRx (LSxRIR)	Paymaster 101	8 3	32.3	3.2	2.5 3.9	10.7	9.2 12.2
289	Colonial Poultry Farms Pleasant Hill, Missouri	WL IN	True-Line 365B	16 10	43.2	3.7	3.0 4.4	10.2	8.9 11.7
330	Colonial Poultry Farms Pleasant Hill, Missouri	INX	True-Line #142	2 1	45.0	3.8	3.3 4.4	9.5	8.3 10.7
309	Davis, Joe K., Earl, North Carolina	RIR x BPR BX	Davis Combiner	14 9	34.0	2.2	1.7 2.8	8.2	7.0 9.5
48	DeKalb Agricultural Assoc., Sycamore, Illinois	INX	DeKalb 131	29 17	51.7	2.6	2.1 3.2	8.6	7.5 9.8
277	DeKalb Agricultural Assoc., Sycamore, Illinois	INX	DeKalb 151	37 20	52.8	3.6	3.0 4.2	8.1	7.1 9.2
256	Del Rio Farm Mesa, Arizona	RIR PS	Del Rio	2 2	45.0	4.4	3.9 5.0	11.1	9.8 12.4
310	Demler Farms Anaheim, California	WL SX	Demler Regal	48 25	37.0	2.9	2.4 3.4	10.0	8.9 11.1
346	Demler Farms Anaheim, California	Syn. x WL BX	Demler Royal	6 4	38.3	3.4	2.8 4.1	9.5	8.1 11.0

* *If the confidence limits for two regressed means overlap, the two means are not significantly different at the 5% level.*

All Stocks Entered, with Regressed Means and 80% Confidence Limits for each Trait *(Continued)*

AGE AT 50% PRODUCTION (Days)		EGG PRODUCTION				INCOME OVER FEED AND CHICK COST ($)		FEED PER 24OZ. OF EGGS PRODUCED (lbs.)		EGG WEIGHT (oz.)		LARGE AND EXTRA LARGE EGGS (%)		BODY WEIGHT (lbs.)		STOCK CODE
		HEN HOUSED (No.)		HEN DAY (%)												
RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	
	173		210		67.7		1.79		4.46		24.6		67.4		4.7	506
176	179	216	222	69.0	70.3	1.94	2.09	4.56	4.66	25.0	25.4	69.9	72.4	4.9	5.1	
	171		210		67.5		1.33		4.53		24.3		62.5		4.1	571
175	179	217	224	68.8	70.1	1.48	1.63	4.65	4.77	24.6	24.9	65.2	67.9	4.3	4.5	
	171		213		69.1		1.80		4.45		24.7		68.5		5.0	561
175	179	220	227	70.5	71.9	1.96	2.12	4.58	4.71	25.1	25.5	71.4	74.3	5.2	5.4	
	171		214		68.6		1.81		4.49		24.9		70.0		4.8	544
174	177	221	228	70.0	71.4	1.97	2.13	4.61	4.73	25.2	25.5	72.8	75.6	5.1	5.4	
	172		221		70.6		1.96		4.39		24.7		67.1		4.5	283
176	180	227	233	71.9	73.2	2.11	2.26	4.50	4.61	25.0	25.3	69.6	72.1	4.7	4.9	
	175		202		66.1		1.54		4.51		24.7		70.2		4.5	292
179	183	209	216	67.5	68.9	1.69	1.84	4.63	4.75	25.0	25.3	72.8	75.4	4.7	4.9	
	175		215		68.8		1.78		4.37		24.6		65.1		4.3	357
179	183	221	227	70.0	71.2	1.93	2.08	4.50	4.63	25.0	25.4	68.0	70.9	4.6	4.9	
	170		220		70.4		1.85		4.39		24.2		62.8		4.4	304
174	178	227	234	71.8	73.2	2.00	2.15	4.51	4.63	24.6	25.0	65.5	68.2	4.6	4.8	
	172		224		72.2		1.92		4.29		24.2		62.7		4.4	31
175	178	229	234	73.3	74.4	2.05	2.18	4.38	4.47	24.5	24.8	64.8	66.9	4.6	4.8	
	171		208		68.0		1.65		4.50		24.3		64.9		4.5	343
175	179	215	222	69.3	70.6	1.81	1.97	4.64	4.78	24.7	25.1	67.8	70.7	4.8	5.1	
	177		225		70.9		2.09		4.23		24.5		68.8		4.4	558
180	183	231	237	72.3	73.7	2.25	2.41	4.34	4.45	24.9	25.3	71.5	74.2	4.6	4.8	
	171		209		66.8		1.67		4.75		24.7		67.1		5.8	508
174	177	215	221	68.2	69.6	1.82	1.97	4.86	4.97	25.1	25.5	69.7	72.3	6.0	6.2	
	168		211		66.6		1.61		4.44		24.2		61.6		4.3	289
171	174	217	223	67.8	69.0	1.75	1.89	4.53	4.62	24.5	24.8	63.8	66.0	4.5	4.7	
	166		217		68.5		1.82		4.24		24.5		64.9		4.8	330
170	174	224	231	69.9	71.3	1.98	2.14	4.37	4.50	24.9	25.3	67.8	70.7	5.1	5.4	
	171		218		68.8		1.91		4.60		25.6		75.0		5.9	309
174	177	224	230	70.0	71.2	2.05	2.19	4.69	4.78	25.9	26.2	77.3	79.6	6.1	6.3	
	168		224		69.8		1.94		4.13		24.5		65.7		4.2	48
171	174	229	234	70.8	71.8	2.07	2.20	4.22	4.31	24.8	25.1	67.8	69.9	4.3	4.4	
	171		217		68.4		1.82		4.22		24.8		68.7		4.1	277
174	177	222	227	69.4	70.4	1.95	2.08	4.30	4.38	25.1	25.4	70.8	72.9	4.3	4.5	
	175		205		66.2		1.46		4.90		24.5		62.9		5.7	256
179	183	212	219	67.6	69.0	1.62	1.78	5.03	5.16	24.9	25.3	65.9	68.9	6.0	6.3	
	168		215		67.9		1.79		4.36		24.5		65.3		4.2	310
171	174	220	225	68.8	69.7	1.92	2.05	4.44	4.52	24.7	24.9	67.3	69.3	4.4	4.6	
	168		216		68.5		1.82		4.27		24.6		65.9		4.3	346
171	174	223	230	69.9	71.3	1.98	2.14	4.38	4.49	24.9	25.2	68.6	71.3	4.5	4.7	

** If the confidence limits for two regressed means overlap, the two means are not significantly different at the 5% level.*

All Stocks Entered, with Regressed Means and 80% Confidence Limits for each Trait *(Continued)*

STOCK CODE	BREEDER'S NAME AND ADDRESS	BREEDING	STRAIN OR TRADENAME	NO ENTRIES	AVG. CHICK PRICE (¢)	MORTALITY			
						GROWING (%)		LAYING (%)	
						RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS
514	deZeeuw Leghorn Breeder	WL		10			3.2		7.5
	So. Edmonton, Alberta	SX	deZeeuw 752	3	38.0	3.9	4.7	8.8	10.2
575	deZeeuw Leghorn Breeder	WL		8			2.7		8.2
	So. Edmonton, Alberta	SX	deZeeuw 752A	4	36.5	3.4	4.1	9.7	11.2
327	Eby's Poultry Farm	WL		8			2.1		6.4
	Carrollton, Texas	IN	#681 Hybrids	3	35.0	2.6	3.3	7.6	9.0
355	Echo Glen Egg Farm	WL		1			3.4		10.2
	Weedville, Pennsylvania	LX	Echo Glen	1	33.0	3.8	4.2	11.2	12.3
564	Elander, P.,	WL		4			3.0		7.8
	Balcarres, Saskatchewan	SX	Starline	1	38.0	3.6	4.3	9.2	10.6
350	Erath Egg Farm			1			2.9		7.5
	Stephenville, Texas	INX	Erath Mestiza	1	35.0	3.2	3.6	8.5	9.4
311	Evans, W. D., Hatchery	WL		13			3.1		7.3
	Northampton, England	SX	Maxilay	6	49.2	3.8	4.6	8.5	9.9
518	Fisher Poultry Farm	WL		12			2.3		7.1
	Ayton, Ontario	SX	Fisher 103	4	35.3	2.9	3.6	8.4	9.8
580	Fisher Poultry Farm	WL x WW		2			3.3		9.3
	Ayton, Ontario	BX	Fisher 303	1	35.0	3.8	4.4	10.6	11.9
246	Forsgate Farms	WL		8			2.1		7.9
	Jamesburg, New Jersey	SX	Forsgate F 160	5	36.0	2.7	3.3	9.3	10.8
66	Garber Poultry Breeding Fr.	WL		16			1.5		7.7
	Modesto, California	SX	Garber G 200	9	34.7	2.0	2.6	9.0	10.3
65	Garber Poultry Breeding Fr.	CG x WL		11			2.3		6.4
	Modesto, California	BX	Garber G x 291	6	33.0	2.9	3.6	7.6	8.9
69	Garrison, Earl W.,	RIR x WR		2			3.4		9.2
	Bridgeton, New Jersey	BX	Golden Sex Link	1	32.0	4.0	4.5	10.4	11.8
70	Gasson's Poultry Farm	WL		4			2.9		7.7
	Versailles, Ohio	SX	Gasson's G 33	2	40.5	3.5	4.2	9.0	10.4
72	Ghostley's Poultry Farm	WL		45			3.1		9.8
	Anoka, Minnesota	SX	Ghostley Pearl	28	44.4	3.7	4.3	10.9	12.1
338	Ghostley's Poultry Farm	WL		30			2.4		9.0
	Anoka, Minnesota	SX	Ghostley Pearl 63	22	43.8	3.0	3.6	10.2	11.6
243	Good's Poultry Farm	WL		1			3.0		10.1
	Indiana, Pennsylvania	SX	Good's	1	33.0	3.3	3.7	11.1	12.2
80	Hansen's Leghorn City	WL		16			2.1		8.3
	Puyallup, Washington	SX	Criss Cross H 25	8	39.5	2.7	3.4	9.6	11.0
84	Hanson, J. A. & Son	WL		5			4.4		12.4
	Corvallis, Oregon	SX	Super Nick	4	39.0	5.1	5.9	14.1	15.8
337	Harco Orchards & Poultry Fr.	RIR		7			3.0		7.1
	So. Easton, Massachusetts	PS	Group I	4	40.5	3.6	4.4	8.4	9.9

* *If the confidence limits for two regressed means overlap, the two means are not significantly different at the 5% level.*

All Stocks Entered, with Regressed Means and 80% Confidence Limits for each Trait *(Continued)*

AGE AT 50% PRODUCTION (Days)		EGG PRODUCTION: HEN HOUSED (No.)		EGG PRODUCTION: HEN DAY (%)		INCOME OVER FEED AND CHICK COST ($)		FEED PER 24OZ. OF EGGS PRODUCED (lbs.)		EGG WEIGHT (oz.)		LARGE AND EXTRA LARGE EGGS (%)		BODY WEIGHT (lbs.)		STOCK CODE
RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	
	173		211		67.4		1.82		4.39		24.2		65.6		4.3	514
177	181	218	225	68.7	70.0	1.97	2.12	4.50	4.61	24.5	24.8	68.1	70.6	4.5	4.7	
	174		214		68.8		1.82		4.26		24.3		63.8		4.0	575
178	182	221	228	70.1	71.4	1.98	2.14	4.37	4.48	24.6	24.9	66.6	69.4	4.2	4.4	
	173		219		68.4		1.91		4.35		24.5		65.1		4.1	327
176	179	226	233	69.7	71.0	2.06	2.21	4.46	4.57	24.8	25.1	67.6	70.1	4.3	4.5	
	183		209		68.9		1.70		4.45		24.4		65.5		4.1	355
187	191	215	221	70.1	71.3	1.85	2.00	4.59	4.73	24.8	25.2	68.5	71.5	4.4	4.7	
	172		213		67.6		1.72		4.44		24.5		65.7		4.7	564
175	178	220	227	69.0	70.4	1.88	2.04	4.56	4.68	24.9	25.3	68.6	71.5	5.0	5.3	
	167		227		70.4		2.06		4.18		24.5		66.2		4.6	350
171	175	233	239	71.6	72.8	2.20	2.34	4.32	4.46	24.9	25.3	69.2	72.2	4.9	5.2	
	179		218		70.1		1.80		4.28		24.1		63.7		4.2	311
182	185	224	230	71.3	72.5	1.94	2.08	4.37	4.46	24.4	24.7	66.0	68.3	4.4	4.6	
	171		215		67.5		1.86		4.37		25.0		70.5		4.2	518
174	177	221	227	68.7	69.9	2.00	2.14	4.47	4.57	25.3	25.6	73.0	75.5	4.4	4.6	
	167		209		66.3		1.68		4.54		24.4		64.1		4.8	580
171	175	216	223	67.6	68.9	1.83	1.98	4.67	4.80	24.8	25.2	67.1	70.1	5.0	5.2	
	178		216		69.3		1.94		4.30		24.7		69.5		4.2	246
182	186	223	230	70.6	71.9	2.09	2.24	4.40	4.50	25.0	25.3	72.0	74.5	4.4	4.6	
	171		219		69.8		2.00		4.29		24.7		70.0		4.4	66
175	179	225	231	71.0	72.2	2.13	2.26	4.38	4.47	25.0	25.3	72.2	74.4	4.6	4.8	
	166		226		70.1		2.03		4.26		25.1		70.4		4.9	65
169	172	232	238	71.3	72.5	2.17	2.31	4.36	4.46	25.4	25.7	72.8	75.2	5.1	5.3	
	176		202		65.3		1.54		4.80		26.0		77.9		6.2	69
180	184	209	216	66.6	67.9	1.69	1.84	4.93	5.06	26.4	26.8	80.8	83.7	6.5	6.8	
	171		219		68.7		1.94		4.27		24.4		65.8		4.1	70
175	179	226	233	70.1	71.5	2.09	2.24	4.39	4.51	24.7	25.0	68.5	71.2	4.3	4.5	
	173		214		69.2		1.75		4.44		24.8		68.6		4.4	72
177	181	219	224	70.1	71.0	1.87	1.99	4.53	4.62	25.0	25.2	70.7	72.8	4.6	4.8	
	169		222		69.9		1.86		4.36		24.8		68.5		4.5	338
172	175	227	232	71.0	72.1	2.00	2.14	4.45	4.54	25.1	25.4	71.0	73.5	4.7	4.9	
	175		205		67.0		1.53		4.65		24.4		65.3		4.6	243
179	183	211	217	68.2	69.4	1.68	1.83	4.79	4.93	24.8	25.2	68.3	71.3	5.0	5.4	
	173		215		68.3		1.78		4.37		24.2		63.3		4.4	80
176	179	220	225	69.4	70.5	1.92	2.06	4.47	4.57	24.5	24.8	65.6	67.9	4.6	4.8	
	169		198		66.2		1.29		4.58		23.7		55.6		4.2	84
173	177	205	212	67.5	68.8	1.44	1.59	4.69	4.80	24.1	24.5	58.2	60.8	4.4	4.6	
	174		216		68.4		1.84		4.48		25.3		73.3		5.8	337
178	182	222	228	69.8	71.2	2.00	2.16	4.59	4.70	25.6	25.9	76.0	78.7	6.0	6.2	

* *If the confidence limits for two regressed means overlap, the two means are not significantly different at the 5% level.*

All Stocks Entered, with Regressed Means and 80% Confidence Limits for each Trait *(Continued)*

STOCK CODE	BREEDER'S NAME AND ADDRESS	BREEDING	STRAIN OR TRADENAME	NO. ENTRIES	AVG. CHICK PRICE (¢)	MORTALITY			
						GROWING (%)		LAYING (%)	
						RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS
225	Harco Orchards & Poultry Fr. So. Easton, Massachusetts	RIR x BPR BX	Sex Link	14 7	40.2	3.1	2.5 3.8	7.1	6.0 8.4
86	Hardy, C. Nelson & Son Essex, Massachusetts	RIR x BPR BX	Sex Link	6 3	34.0	2.6	2.0 3.2	10.8	9.3 12.4
88	Heisdorf & Nelson Farms Kirkland, Washington	WL SX	Nick Chick	76 28	40.9	3.1	2.6 3.6	7.7	6.9 8.7
252	Heisdorf & Nelson Farms Kirkland, Washington	WL SX	Mark II	11 7	43.0	4.0	3.3 4.8	8.6	7.3 10.0
275	Heisdorf & Nelson Farms Kirkland, Washington	Syn x WL BX	Breed Cross	5 3	34.0	2.9	2.3 3.5	7.8	6.6 9.2
316	Heisey Leghorn Farms Mt. Joy, Pennsylvania	WL SX	H-K-Cross	2 1	30.0	3.6	3.1 4.1	9.3	8.1 10.6
92	Honegger Breeder Hatchery Forrest, Illinois	WL SX	Honegger Layer	39 15	40.8	2.8	2.3 3.4	7.5	6.5 8.6
93	Honegger Breeder Hatchery Forrest, Illinois	WL SX	Honegger Layer 62	4 2	43.0	3.5	2.9 4.1	10.1	8.7 11.6
321	Honegger Breeder Hatchery Forrest, Illinois	Syn x WL BX	Honegger H-80	14 6	45.0	2.7	2.1 3.4	9.9	8.6 11.4
276	Hubbard Farms Walpole, New Hampshire	Syn x NH BX	Comet	17 9	35.2	2.6	2.0 3.2	9.2	8.0 10.6
314	Hy-Line Poultry Farm Des Moines, Iowa	 INX	Hy-Line 934-F	23 13	51.5	3.2	2.6 3.9	7.0	6.0 8.2
240	Hy-Line Poultry Farm Des Moines, Iowa	 INX	Hy-Line 934-H	75 32	52.9	2.0	1.6 2.4	5.6	4.8 6.3
101	Ideal Hatchery & Poultry Fr. Cameron, Texas	WL SX	H-3-W	35 20	38.8	4.6	3.9 5.3	10.5	9.3 11.8
340	Ideal Hatchery & Poultry Fr. Cameron, Texas	WL SX	H-3-W-2	24 16	38.8	3.6	2.9 4.3	11.5	10.1 12.9
108	Kerr, Dr., Hatcheries Minneota, Minnesota	WL IN	Kerr's 409 C	8 5	42.0	3.3	2.7 4.0	10.2	8.7 11.7
341	Kerr, Dr., Hatcheries Minneota, Minnesota	 INX	Kerr's P-K 26	3 3	48.0	2.9	2.4 3.4	10.1	8.7 11.5
109	Keystone Poultry Breeding Fr. Terre Hill, Pennsylvania	WL SX	Park's Keystone	4 2	39.0	3.7	3.1 4.3	10.6	9.2 12.2
110	Kimber Farms, Inc. Fremont, California	WL SX	Kimber K 137	73 32	42.0	2.5	2.1 3.0	7.9	7.1 8.8
111	Kimber Farms, Inc. Fremont, California	WL SX	Kimber K 141	5 3	39.0	2.4	1.9 3.0	8.9	7.6 10.3
112	Kimber Farms, Inc. Fremont, California	WL SX	Kimber K 155	19 10	40.5	2.9	2.3 3.6	9.2	7.9 10.5

* *If the confidence limits for two regressed means overlap, the two means are not significantly different at the 5% level.*

All Stocks Entered, with Regressed Means and 80% Confidence Limits for each Trait *(Continued)*

AGE AT 50% PRODUCTION (Days)		EGG PRODUCTION				INCOME OVER FEED AND CHICK COST ($)		FEED PER 24 OZ. OF EGGS PRODUCED (lbs.)		EGG WEIGHT (oz.)		LARGE AND EXTRA LARGE EGGS (%)		BODY WEIGHT (lbs.)		STOCK CODE
		HEN HOUSED (No.)		HEN DAY (%)												
RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	
	172		226		70.8		2.24		4.44		26.1		80.4		6.0	225
176	180	231	236	72.0	73.2	2.37	2.50	4.53	4.62	26.3	26.5	82.7	85.0	6.2	6.4	
	173		206		66.0		1.81		4.66		25.5		76.3		6.1	86
177	181	212	218	67.3	68.6	1.96	2.11	4.77	4.88	25.8	26.1	78.9	81.5	6.3	6.5	
	169		225		69.8		2.01		4.31		24.7		67.6		4.4	88
172	175	229	233	70.7	71.6	2.14	2.27	4.39	4.47	24.9	25.1	69.6	71.6	4.5	4.6	
	170		225		70.2		1.98		4.26		24.8		67.3		4.2	252
174	178	231	237	71.4	72.6	2.12	2.26	4.36	4.46	25.2	25.6	69.7	72.1	4.4	4.6	
	168		225		70.3		1.97		4.28		25.0		69.4		5.1	275
172	176	232	239	71.6	72.9	2.13	2.29	4.40	4.52	25.3	25.6	72.0	74.6	5.3	5.5	
	171		215		67.5		1.90		4.32		24.8		69.6		4.2	316
174	177	222	229	68.9	70.3	2.05	2.20	4.46	4.60	25.1	25.4	72.5	75.4	4.4	4.6	
	170		229		71.1		2.09		4.21		24.5		67.1		4.3	92
173	176	234	239	72.1	73.1	2.22	2.35	4.29	4.37	24.8	25.1	69.2	71.3	4.4	4.5	
	170		218		69.3		1.82		4.36		24.3		64.2		4.5	93
174	178	225	232	70.7	72.1	1.98	2.14	4.48	4.60	24.7	25.1	66.9	69.6	4.7	4.9	
	167		226		70.8		1.92		4.27		24.6		64.3		5.0	321
171	175	231	236	72.0	73.2	2.06	2.20	4.37	4.47	24.9	25.2	66.6	68.9	5.2	5.4	
	168		222		69.7		2.06		4.42		24.5		66.2		5.3	276
171	174	227	232	70.9	72.1	2.19	2.32	4.51	4.60	24.8	25.1	68.4	70.6	5.4	5.5	
	171		223		69.6		1.97		4.13		25.1		70.3		4.2	314
174	177	229	235	70.6	71.6	2.10	2.23	4.22	4.31	25.4	25.7	72.4	74.5	4.4	4.6	
	168		236		72.6		2.19		4.06		24.9		69.6		4.1	240
171	174	240	244	73.5	74.4	2.31	2.43	4.14	4.22	25.1	25.3	71.5	73.4	4.2	4.3	
	176		212		68.6		1.81		4.33		24.8		69.2		4.2	101
179	182	217	222	69.6	70.6	1.94	2.07	4.41	4.49	25.1	25.4	71.4	73.6	4.3	4.4	
	173		210		68.0		1.80		4.37		24.8		69.3		4.2	340
176	179	216	222	69.2	70.4	1.94	2.08	4.47	4.57	25.1	25.4	71.7	74.1	4.4	4.6	
	168		220		70.5		1.88		4.27		24.8		67.6		4.5	108
171	174	227	234	71.8	73.1	2.03	2.18	4.38	4.49	25.1	25.4	70.0	72.4	4.7	4.9	
	169		216		68.3		1.79		4.34		24.8		67.6		4.4	341
173	177	223	230	69.7	71.1	1.95	2.11	4.47	4.60	25.1	25.4	70.4	73.2	4.6	4.8	
	173		212		68.8		1.81		4.34		24.7		68.7		4.5	109
177	181	219	226	70.1	71.4	1.97	2.13	4.47	4.60	25.0	25.3	71.4	74.1	4.7	4.9	
	169		224		69.8		1.96		4.28		24.8		69.8		4.3	110
171	173	229	234	70.6	71.4	2.08	2.20	4.36	4.44	25.1	25.4	71.8	73.8	4.5	4.7	
	170		218		69.0		1.92		4.22		24.5		67.2		4.3	111
174	178	225	232	70.3	71.6	2.08	2.24	4.34	4.46	24.8	25.1	69.9	72.6	4.6	4.9	
	167		223		69.4		1.91		4.36		24.6		66.8		4.5	112
170	173	228	233	70.6	71.8	2.04	2.17	4.45	4.54	24.9	25.2	69.0	71.2	4.7	4.9	

* *If the confidence limits for two regressed means overlap, the two means are not significantly different at the 5% level.*

All Stocks Entered, with Regressed Means and 80% Confidence Limits for each Trait *(Continued)*

STOCK CODE	BREEDER'S NAME AND ADDRESS	BREEDING	STRAIN OR TRADENAME	NO. ENTRIES	AVG. CHICK PRICE (¢)	MORTALITY			
						GROWING (%)		LAYING (%)	
						RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS
347	Kimber Farms, Inc.	Syn x WL		3			3.0		8.5
	Fremont, California	BX	Kimber K 222	2	42.5	3.6	4.2	9.9	11.3
344	Kingstowne Poultry Farm	RIR x WR		1			3.1		7.0
	Kingston, Rhode Island	BX	Buff Sex Link	1	35.0	3.5	3.9	7.9	8.8
227	Klongland Hatchery	CG x WL		2			2.7		6.0
	Stoughton, Wisconsin	BX	K Cross	1	35.0	3.2	3.7	7.1	8.2
582	Law, H. A.	RIR		2			2.6		9.1
	Hatfield Pt., N. B.	SX	Law's Red Cross	1	31.0	3.0	3.5	10.3	11.6
117	Lawton, A. C. & Sons	RIR x WPR		14			3.0		6.2
	Foxboro, Massachusetts	BX	Buff Sex Link	7	35.0	3.7	4.5	7.3	8.6
581	Macdonald College	WL		2			3.5		7.2
	Ste. Anne de Bellevue, Que.	SX	Macdonald 321	1	40.0	4.1	4.6	8.4	9.5
348	Mathews Poultry Farm	WL		1			3.4		9.7
	Burlington, Wisconsin	SX	M-333-T	1	41.0	3.8	4.3	10.7	11.8
354	Musser Leghorn Farm	WL		1			2.5		9.3
	Mt. Joy, Pennsylvania	SX	Musser	1	38.0	2.8	3.2	10.3	11.4
555	Nelson, George F.	RIR x LS		4			2.3		7.3
	Truro, Nova Scotia	BX	Red x Sussex	1	28.0	2.9	3.5	8.6	9.9
526	Noble Bros.	WL		4			2.5		10.4
	Orangeville, Ontario	SX	Noble N-60	1	33.0	3.1	3.7	11.9	13.5
358	Norco Poultry Breeding Farm	CG x WL		2			2.9		7.8
	Norco, California	BX	Norco Gray	1	32.0	3.4	3.9	8.9	10.2
143	Norris, Vernon	WL		1			3.2		10.4
	Valencia, Pennsylvania	PS	Efficiency	1	38.0	3.6	4.0	11.4	12.5
37	No. Cent. Reg. Plty. Br. Lab.	WL		27			3.5		10.1
	Lafayette, Indiana	PS	Reg. Cornell Contr.	12	42.0	4.2	5.0	11.3	12.7
257	No. Cent. Reg. Plty. Br. Lab.	RIR		2			3.4		9.4
	Lafayette, Indiana	PS	Reg. Red Control	1	35.0	3.9	4.5	10.7	12.0
157	No. Cent. Reg. Plty. Br. Lab.	RIR x WL		5			2.1		7.5
	Lafayette, Indiana	BX	Reg. Red x Cornell	3	42.0	2.7	3.2	8.9	10.3
567	Oka Group	WL		4			3.0		9.3
	Oka, Two Mountains, Que.	SX	Oka 93	1	40.0	3.6	4.3	10.7	12.3
152	Penna.-Ind. Farm Bureau	WL		8			3.2		7.4
	Grantville, Pennsylvania	SX	Princess 55	4	41.5	4.0	4.7	8.7	10.2
234	Penna.-Ind. Farm Bureau	WL		2			3.3		7.8
	Grantville, Pennsylvania	SX	Duchess 60	1	42.0	3.8	4.4	9.0	10.2
345	Penna.-Ind. Farm Bureau	WL		4			3.0		9.6
	Grantville, Pennsylvania	SX	Countess 75	3	47.0	3.6	4.2	11.0	12.6
159	Randall Hatchery & Br. Farm	CG x WL		5			2.4		8.1
	Montclair, California	BX	Randall Gray x Leg.	3	34.0	2.9	3.5	9.5	10.9

* *If the confidence limits for two regressed means overlap, the two means are not significantly different at the 5% level.*

All Stocks Entered, with Regressed Means and 80% Confidence Limits for each Trait *(Continued)*

AGE AT 50% PRODUCTION (Days)		EGG PRODUCTION: HEN HOUSED (No.)		EGG PRODUCTION: HEN DAY (%)		INCOME OVER FEED AND CHICK COST ($)		FEED PER 24 OZ. OF EGGS PRODUCED (lbs.)		EGG WEIGHT (oz.)		LARGE AND EXTRA LARGE EGGS (%)		BODY WEIGHT (lbs.)		STOCK CODE
RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	
	168		218		69.6		1.86		4.20		24.8		66.3		4.6	347
172	176	225	232	71.0	72.4	2.02	2.18	4.33	4.46	25.1	25.4	69.2	72.1	4.9	5.2	
	172		211		66.9		1.65		4.65		24.9		69.0		6.1	344
176	180	217	223	68.1	69.3	1.80	1.95	4.79	4.93	25.3	25.7	72.0	75.0	6.4	6.7	
	169		219		68.0		1.92		4.25		25.0		67.9		5.0	227
172	175	226	233	69.4	70.8	2.08	2.24	4.38	4.51	25.3	25.6	70.8	73.7	5.3	5.6	
	169		204		65.8		1.66		4.66		24.9		68.9		5.7	582
173	177	210	216	67.1	68.4	1.81	1.96	4.80	4.94	25.3	25.7	71.9	74.9	5.9	6.1	
	179		212		67.6		1.91		4.62		26.0		81.0		5.9	117
182	185	218	224	68.8	70.0	2.04	2.17	4.72	4.82	26.3	26.6	83.3	85.6	6.1	6.3	
	174		219		68.7		1.81		4.28		24.0		59.7		4.0	581
178	182	225	231	70.1	71.5	1.96	2.11	4.41	4.54	24.3	24.6	62.7	65.7	4.3	4.6	
	175		213		69.8		1.80		4.31		24.8		69.8		4.8	348
179	183	220	227	71.0	72.2	1.95	2.10	4.44	4.57	25.2	25.6	72.7	75.6	5.1	5.4	
	184		213		69.3		1.76		4.42		24.5		65.0		4.4	354
187	190	219	225	70.5	71.7	1.91	2.06	4.56	4.70	24.8	25.1	68.0	71.0	4.7	5.0	
	169		204		64.3		1.64		5.03		25.2		70.7		6.6	555
173	177	211	218	65.7	67.1	1.80	1.96	5.16	5.29	25.5	25.8	73.6	76.5	6.8	7.0	
	174		206		66.6		1.59		4.56		24.2		62.0		4.9	526
177	180	212	218	68.0	69.4	1.75	1.91	4.68	4.80	24.6	25.0	64.9	67.8	5.2	5.5	
	170		222		69.5		1.84		4.39		24.5		65.7		5.1	358
174	178	228	234	70.8	72.1	2.00	2.16	4.52	4.65	24.9	25.3	68.6	71.5	5.4	5.7	
	184		205		67.6		1.65		4.44		24.8		68.7		3.9	143
187	190	211	217	68.8	70.0	1.80	1.95	4.57	4.70	25.2	25.6	71.7	74.7	4.2	4.5	
	175		206		66.2		1.40		4.70		23.7		57.0		4.5	37
178	181	211	216	67.2	68.2	1.52	1.64	4.79	4.88	24.0	24.3	59.1	61.2	4.7	4.9	
	173		203		65.5		1.24		5.12		23.8		62.1		5.6	257
177	181	210	217	66.8	68.1	1.39	1.54	5.26	5.40	24.2	24.6	65.0	67.9	5.8	6.0	
	173		207		66.0		1.38		4.88		24.2		63.3		5.4	157
176	179	213	219	67.4	68.8	1.54	1.70	5.00	5.12	24.5	24.8	65.9	68.5	5.7	6.0	
	172		210		67.4		1.75		4.32		25.0		70.2		4.4	567
176	180	217	224	68.8	70.2	1.91	2.07	4.44	4.56	25.3	25.6	73.0	75.8	4.7	5.0	
	172		224		70.4		2.08		4.18		24.4		66.3		4.2	152
175	178	231	238	71.8	73.2	2.22	2.36	4.29	4.40	24.7	25.0	68.7	71.1	4.4	4.6	
	170		225		70.3		2.00		4.22		24.4		65.6		4.4	234
174	178	232	239	71.7	73.1	2.15	2.30	4.35	4.48	24.7	25.0	68.5	71.4	4.6	4.8	
	170		215		68.7		1.81		4.25		24.7		68.7		4.1	345
174	178	222	229	70.1	71.5	1.96	2.11	4.38	4.51	25.0	25.3	71.5	74.3	4.4	4.7	
	168		221		69.9		1.90		4.35		24.5		65.7		4.9	159
172	176	228	235	71.2	72.5	2.05	2.20	4.47	4.59	24.9	25.3	68.4	71.1	5.1	5.3	

* *If the confidence limits for two regressed means overlap, the two means are not significantly different at the 5% level.*

All Stocks Entered, with Regressed Means and 80% Confidence Limits for each Trait *(Continued)*

STOCK CODE	BREEDER'S NAME AND ADDRESS	BREEDING	STRAIN OR TRADENAME	NO. ENTRIES	AVG. CHICK PRICE (¢)	MORTALITY			
						GROWING (%)		LAYING (%)	
						RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS
160	Rapp Leghorn Farm Farmingdale, New Jersey	WL SX	Rapp Linecross	16 7	35.5	3.3	2.6 4.0	9.5	8.2 10.9
585	Raynor, Ralph E., Charlottetown, P. E. I.	WL SX	Raynor R 12	2 1	37.0	3.7	3.2 4.2	12.0	10.7 13.4
586	Raynor, Ralph E., Charlottetown, P. E. I.	WL SX	Raynor R 63	4 2	37.5	2.8	2.3 3.4	10.4	9.0 11.9
164	Richardson Poultry Br. Farm Redlands, California	WA BX	White Austra	2 1	39.0	2.5	2.1 3.0	8.9	7.8 10.2
249	Riddle Spring Poultry Farm Manchester, New Hampshire	RIR x WR BX	Super-Triway	6 3	30.0	3.3	2.6 4.0	8.5	7.1 9.9
525	ROP Breeders' Hatchery Winnipeg, Manitoba	WL SX	Keyline 110	2 1	40.0	3.7	3.3 4.1	9.9	8.7 11.2
591	ROP Breeders' Hatchery Winnipeg, Manitoba	WL SX	Keyline 110 B	2 1	41.0	3.9	3.4 4.5	11.3	10.0 12.6
576	ROP Breeders' Hatchery Winnipeg, Manitoba	WL SX	Keyline 110C	2 1	41.0	2.8	2.4 3.3	11.1	9.8 12.5
566	St. Augustin Coop. Hatchery St. Augustin, Quebec	WL SX	Corvette A1	8 3	39.0	3.0	2.4 3.7	9.1	7.7 10.5
583	Ste. Martine Coop. Hatchery Ste. Martine, Quebec	WL SX	La Chateauguay 583	2 1	35.0	3.2	2.7 3.7	9.7	8.5 11.0
584	Ste. Martine Coop. Hatchery Ste. Martine, Quebec	WL SX	La Chateauguay 593	2 1	38.0	3.7	3.2 4.2	10.8	9.6 12.2
588	Sanders Chick Hatchery Moncton, N. B.	WL SX	Keystones	2 1	39.0	3.6	3.1 4.2	12.2	10.9 13.5
295	Schaible, Louis D., Shiloh, New Jersey	WL SX	K Cross	8 5	35.5	4.4	3.6 5.2	8.7	7.4 10.2
180	Schuyler Poultry Farms LeRoy, New York	WL SX	EGG Champs	3 2	40.0	3.6	3.0 4.2	8.6	7.3 9.9
324	Schuyler Poultry Farms LeRoy, New York	WL SX	Egg Lines	5 2	40.0	3.3	2.7 3.9	10.2	8.8 11.8
181	Shaver Poultry Br. Farm Galt, Ontario	WL SX	Starcross 288	49 24	39.1	3.4	2.8 3.9	8.9	7.9 10.0
315	Shaver Poultry Br. Farm Galt, Ontario	WL SX	Starcross 292	5 3	38.7	4.4	3.7 5.2	9.1	7.7 10.5
328	Shaver Poultry Br. Farm Galt, Ontario	CG x WL BX	Starcross 444	10 5	38.5	3.1	2.5 3.8	8.7	7.4 10.1
333	Shaver Poultry Br. Farm Galt, Ontario	RIR SX	Starcross 555	4 1	40.0	3.2	2.7 3.9	10.3	9.0 11.8
572	Smyth, James Nanaimo, British Columbia	WL SX	Smyth 501 x 547	4 1	38.0	4.0	3.3 4.7	10.1	8.7 11.6

* *If the confidence limits for two regressed means overlap, the two means are not significantly different at the 5% level.*

All Stocks Entered, with Regressed Means and 80% Confidence Limits for each Trait *(Continued)*

AGE AT 50% PRODUCTION (Days)		EGG PRODUCTION				INCOME OVER FEED AND CHICK COST ($)		FEED PER 24OZ. OF EGGS PRODUCED (lbs.)		EGG WEIGHT (oz.)		LARGE AND EXTRA LARGE EGGS (%)		BODY WEIGHT (lbs.)		STOCK CODE
		HEN HOUSED (No.)		HEN DAY (%)												
RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	
	175		216		68.8		1.91		4.33		24.8		69.9		4.2	160
178	181	222	228	69.9	71.0	2.05	2.19	4.43	4.53	25.1	25.4	72.2	74.5	4.3	4.4	
	174		208		67.8		1.63		4.50		24.4		64.1		4.7	585
178	182	214	220	69.1	70.4	1.79	1.95	4.63	4.76	24.7	25.0	67.1	70.1	5.0	5.3	
	172		207		66.2		1.54		4.52		24.1		61.3		4.4	586
176	180	213	219	67.6	69.0	1.70	1.86	4.65	4.78	24.5	24.9	64.1	66.9	4.6	4.8	
	170		222		69.6		1.80		4.44		23.5		57.8		5.0	164
173	176	229	236	70.9	72.2	1.96	2.12	4.58	4.72	23.9	24.3	60.8	63.8	5.2	5.4	
	173		215		68.0		2.02		4.55		25.8		75.8		6.2	249
177	181	222	229	69.4	70.8	2.18	2.34	4.66	4.77	26.1	26.4	78.4	81.0	6.5	6.8	
	169		217		68.4		1.89		4.20		24.3		64.9		4.5	525
173	177	224	231	69.8	71.2	2.05	2.21	4.33	4.46	24.7	25.1	67.9	70.9	4.8	5.1	
	169		207		67.0		1.68		4.41		24.8		67.8		4.5	591
173	177	214	221	68.3	69.6	1.84	2.00	4.54	4.67	25.1	25.4	70.8	73.8	4.8	5.1	
	167		217		68.7		1.85		4.21		24.3		63.1		4.3	576
171	175	224	231	70.0	71.3	2.00	2.15	4.35	4.49	24.6	24.9	66.1	69.1	4.6	4.9	
	172		213		67.0		1.86		4.37		25.1		71.5		4.8	566
175	178	220	227	68.4	69.8	2.01	2.16	4.48	4.59	25.4	25.7	74.1	76.7	5.0	5.2	
	173		212		67.8		1.74		4.33		24.1		62.2		4.0	583
177	181	218	224	69.1	70.4	1.90	2.06	4.46	4.59	24.5	24.9	65.1	68.0	4.3	4.6	
	175		211		68.4		1.74		4.32		24.7		68.9		4.0	584
179	183	217	223	69.8	71.2	1.90	2.06	4.46	4.60	25.1	25.5	71.8	74.7	4.3	4.6	
	174		195		66.1		1.37		4.48		24.5		63.9		3.9	588
178	182	202	209	67.4	68.7	1.53	1.69	4.61	4.74	24.8	25.1	66.9	69.9	4.2	4.5	
	178		216		68.5		1.89		4.37		24.6		68.0		4.1	295
182	186	222	228	69.8	71.1	2.04	2.19	4.47	4.57	24.9	25.2	70.4	72.8	4.3	4.5	
	174		218		68.7		1.91		4.29		24.5		66.7		4.2	180
178	182	225	232	70.1	71.5	2.07	2.23	4.41	4.53	24.8	25.1	69.5	72.3	4.4	4.6	
	173		215		68.4		1.80		4.33		24.1		62.2		4.2	324
176	179	222	229	69.8	71.2	1.96	2.12	4.45	4.57	24.4	24.7	65.0	67.8	4.5	4.8	
	170		235		74.0		2.21		4.19		24.9		69.8		4.5	181
173	176	239	243	74.9	75.8	2.33	2.45	4.27	4.35	25.2	25.5	71.8	73.8	4.7	4.9	
	168		215		67.8		1.78		4.46		24.5		67.2		4.6	315
172	176	222	229	69.2	70.6	1.94	2.10	4.58	4.70	24.8	25.1	69.8	72.4	4.8	5.0	
	167		218		68.0		1.89		4.39		25.0		69.1		5.0	328
170	173	224	230	69.3	70.6	2.03	2.17	4.49	4.59	25.3	25.6	71.5	73.9	5.2	5.4	
	171		208		66.7		1.81		4.53		25.2		73.5		5.8	333
175	179	215	222	68.1	69.5	1.97	2.13	4.66	4.79	25.5	25.8	76.4	79.3	6.0	6.2	
	173		208		65.3		1.25		4.99		23.0		50.9		4.6	572
177	181	214	220	66.7	68.1	1.41	1.57	5.12	5.25	23.3	23.6	53.7	56.5	4.9	5.2	

* *If the confidence limits for two regressed means overlap, the two means are not significantly different at the 5% level.*

All Stocks Entered, with Regressed Means and 80% Confidence Limits for each Trait *(Continued)*

STOCK CODE	BREEDER'S NAME AND ADDRESS	BREEDING	STRAIN OR TRADENAME	NO. ENTRIES	AVG. CHICK PRICE (¢)	MORTALITY			
						GROWING (%)		LAYING (%)	
						RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS
533	Starline Breeders Hatchery	CG x WL		8			2.4		7.8
	Saskatoon, Saskatchewan	BX	Pearlette	3	38.0	3.1	3.7	9.2	10.7
186	Stever Hatchery	WL		12			1.9		7.4
	Huntingdon, Pennsylvania	SX	Stever SC-300	4	37.3	2.5	3.1	8.7	10.1
190	Stone's Poultry Farm	WL		16			2.0		6.0
	Dinuba, California	SX	Stone's H 56	10	34.5	2.6	3.2	7.1	8.3
336	Sturtevant Farms, Inc.	RIR x WPR		6			2.8		6.2
	Halifax, Massachusetts	BX	Golden Sex Link	3	33.0	3.5	4.2	7.4	8.8
196	Sunnyside Hatchery	CG x WL		2			3.0		8.0
	Watertown, Wisconsin	BX	Wisco White	1	35.0	3.5	4.0	9.1	10.4
199	Townline Poultry Farm	WL		6			3.4		9.1
	Zeeland, Michigan	SX	Townline SC 30	3	36.7	4.2	4.9	10.6	12.1
556	Triska, Eric	WL		8			3.2		11.0
	Edmonton, Alberta	SX	Belmont 292	2	37.0	3.9	4.6	12.6	14.3
534	Triska, Eric	WL		6			2.7		8.6
	Edmonton, Alberta	SX	Belmont 292 A	2	37.0	3.3	3.9	10.0	11.5
325	University of Tenn.	WL		4			2.9		10.4
	Knoxville, Tennessee	PS	Pure Line	1	42.0	3.4	3.9	11.9	13.5
202	Vancrest Farms	RIR x NH		2			3.3		12.7
	Hyde Park, New York	BX	All Red	1	32.0	3.8	4.4	14.1	15.6
587	Vriends, Arnold	WL		2			3.0		7.0
	Covehead Road, P. E. I.	SX	Mac 250	1	34.0	3.5	4.1	8.1	9.2
353	Warren, J. J., Inc.	Syn x WL		4			3.1		9.8
	No. Brookfield, Mass.	BX	Warren B-63	2	37.0	3.7	4.3	11.3	12.8
42	Warren, J. J., Inc.	WL		19			3.9		10.4
	No. Brookfield, Mass.	SX	Warren Darby DX	10	42.8	4.6	5.5	11.8	13.2
250	Warren, J. J., Inc.	WL x Syn		7			2.8		8.3
	No. Brookfield, Mass.	BX	Warren J. J.	4	42.0	3.4	4.1	9.7	11.2
305	Warren, J. J., Inc.	RIR x RIW		20			2.3		6.5
	No. Brookfield, Mass.	BX	Sex-Sal-Link-F	11	41.6	2.9	3.5	7.7	8.9
349	Webster Poultry Farm	RIR		1			2.9		10.3
	Auburn, New York	SX	New Red	1	37.0	3.3	3.7	11.4	12.5
319	Welp's Breeding Farm			2			3.5		8.7
	Bancroft, Iowa	MSC	Welp Line 542	1	36.0	4.0	4.6	9.9	11.2
212	Welp's Breeding Farm	WL		4			2.7		9.3
	Bancroft, Iowa	SX	Welp Line 901	2	37.0	3.3	4.0	10.7	12.2
290	Welp's Breeding Farm	WL		40			2.3		8.2
	Bancroft, Iowa	SX	Welp Line 937	20	37.6	2.8	3.4	9.3	10.4
298	White Farms	CG x WL		5			2.5		8.6
	Corona, California	BX	White Cross	3	30.0	3.1	3.7	10.0	11.5
219	Wood Poultry Breeding Farm	AW		5			2.3		8.2
	Pomona, California	BX	Austra-White	3	41.0	2.8	3.4	9.6	11.1

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All Stocks Entered, with Regressed Means and 80% Confidence Limits for each Trait *(Continued)*

AGE AT 50% PRODUCTION (Days)		EGG PRODUCTION: HEN HOUSED (No.)		EGG PRODUCTION: HEN DAY (%)		INCOME OVER FEED AND CHICK COST ($)		FEED PER 24 OZ. OF EGGS PRODUCED (lbs.)		EGG WEIGHT (oz.)		LARGE AND EXTRA LARGE EGGS (%)		BODY WEIGHT (lbs.)		STOCK CODE
RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	
	168		215		67.4		1.78		4.49		24.5		64.5		5.1	533
172	176	222	229	68.7	70.0	1.93	2.08	4.60	4.71	24.8	25.1	67.2	69.9	5.3	5.5	
	170		216		67.5		1.91		4.28		24.0		61.2		3.9	186
174	178	222	228	68.7	69.9	2.05	2.19	4.38	4.48	24.3	24.6	63.6	66.0	4.1	4.3	
	166		233		72.3		2.06		4.25		24.5		63.9		4.5	190
169	172	239	245	73.4	74.5	2.21	2.36	4.36	4.47	24.7	24.9	66.2	68.5	4.7	4.9	
	173		217		68.4		2.12		4.37		25.7		78.1		5.7	336
177	181	224	231	69.8	71.2	2.27	2.42	4.48	4.59	26.0	26.3	80.6	83.1	5.9	6.1	
	168		219		68.7		1.87		4.28		24.7		65.2		5.0	196
172	176	226	233	70.1	71.5	2.03	2.19	4.42	4.56	25.0	25.3	68.1	71.0	5.3	5.6	
	173		212		68.5		1.79		4.40		24.5		67.2		4.2	199
177	181	218	224	69.8	71.1	1.94	2.09	4.51	4.62	24.9	25.3	69.8	72.4	4.5	4.8	
	173		205		67.3		1.64		4.51		24.5		65.6		4.8	556
177	181	212	219	68.7	70.1	1.79	1.94	4.63	4.75	24.8	25.1	68.2	70.8	5.0	5.2	
	174		205		66.4		1.61		4.61		25.0		70.9		4.6	534
177	180	211	217	67.7	69.0	1.77	1.93	4.73	4.85	25.3	25.6	73.7	76.5	4.9	5.2	
	170		197		63.9		1.35		4.73		24.0		60.6		4.4	325
174	178	204	211	65.3	66.7	1.51	1.67	4.86	4.99	24.4	24.8	63.4	66.2	4.7	5.0	
	180		191		65.7		1.31		4.74		25.1		70.9		5.3	202
184	188	198	205	67.1	68.5	1.47	1.63	4.87	5.00	25.4	25.7	73.9	76.9	5.6	5.9	
	171		220		68.7		1.86		4.43		24.4		64.2		4.7	587
175	179	227	234	70.1	71.5	2.02	2.18	4.56	4.69	24.8	25.2	67.2	70.2	5.0	5.3	
	170		212		68.3		1.76		4.29		24.5		65.2		4.7	353
174	178	219	226	69.7	71.1	1.91	2.06	4.41	4.53	24.8	25.1	68.1	71.0	4.9	5.1	
	181		212		69.6		1.82		4.38		24.6		68.1		4.1	42
184	187	217	222	70.7	71.8	1.95	2.08	4.46	4.54	24.9	25.2	70.3	72.5	4.3	4.5	
	176		214		67.9		1.77		4.33		24.6		66.1		4.3	250
179	182	220	226	69.2	70.5	1.93	2.09	4.44	4.55	24.9	25.2	68.5	70.9	4.5	4.7	
	175		217		68.2		2.04		4.42		25.5		77.5		5.4	305
179	183	222	227	69.3	70.4	2.17	2.30	4.51	4.60	25.8	26.1	79.7	81.9	5.6	5.8	
	175		207		67.9		1.56		4.65		24.4		63.6		5.5	349
179	183	213	219	69.1	70.3	1.71	1.86	4.78	4.91	24.7	25.0	66.6	69.6	5.8	6.1	
	170		214		68.2		1.80		4.30		24.5		65.1		4.3	319
174	178	221	228	69.5	70.8	1.95	2.10	4.43	4.56	24.9	25.3	68.1	71.1	4.5	4.7	
	167		221		69.5		2.09		4.02		24.5		67.0		4.1	212
171	175	228	235	70.9	72.3	2.25	2.41	4.15	4.28	24.8	25.1	69.8	72.6	4.3	4.5	
	171		222		70.1		2.02		4.16		24.8		69.4		4.0	290
174	177	227	232	71.0	71.9	2.15	2.28	4.25	4.34	25.1	25.4	71.5	73.6	4.2	4.4	
	166		220		69.7		1.76		4.42		24.5		64.4		4.9	298
169	172	226	232	71.1	72.5	1.92	2.08	4.54	4.66	24.8	25.1	67.0	69.6	5.2	5.5	
	170		211		67.1		1.56		4.57		24.4		63.5		4.8	219
173	176	218	225	68.5	69.9	1.71	1.86	4.69	4.81	24.7	25.0	66.1	68.7	5.0	5.2	

* *If the confidence limits for two regressed means overlap, the two means are not significantly different at the 5% level.*

All Stocks Entered, with Regressed Means and 80% Confidence Limits for each Trait *(Continued)*

STOCK CODE	STRAIN OR TRADENAME	ALBUMEN QUALITY (*Haugh units*)		BLOOD SPOTS 1/8 INCH OR MORE (%)		BLOOD SPOTS LESS THAN 1/8 INCH (%)		MEAT SPOTS 1/8 INCH OR MORE (%)		MEAT SPOTS LESS THAN 1/8 INCH (%)		SHELL THICKNESS (*1/1000 inch*)	
		RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS
317	LX 360		74.3		1.1		1.8		0.1		0.1		13.7
		75.5	76.7	1.3	1.6	1.9	2.1	0.5	1.1	0.6	1.4	13.9	14.1
339	LX 363		75.5		1.2		1.7		0.1		0.3		13.6
		76.9	78.3	1.4	1.6	1.8	2.0	0.4	1.1	1.0	2.2	13.9	14.2
5	Ames 424		79.3		0.9		1.7		0.2		0.3		13.9
		80.1	80.9	1.1	1.4	1.9	2.2	0.5	0.8	0.8	1.4	14.2	14.5
8	Ames 505		75.2		0.8		2.1		5.5		19.9		14.0
		76.1	77.0	1.0	1.3	2.3	2.5	6.8	8.3	22.8	25.8	14.2	14.4
537	Polka Dot		76.6		1.2		1.8		0.3		0.7		13.8
		77.6	78.6	1.5	1.8	2.0	2.2	0.7	1.3	1.4	2.4	14.1	14.4
578	Andrews		73.6		1.1		1.8		0.4		1.4		13.9
		74.6	75.6	1.3	1.6	1.9	2.1	0.9	1.7	2.5	4.0	14.1	14.3
145	Random Bred		76.8		1.2		1.9		0.1		0.5		13.7
		77.8	78.8	1.5	1.7	2.0	2.2	0.4	1.0	1.4	2.6	14.0	14.3
570	Kentville R. B. C.		75.8		1.3		1.8		0.1		0.3		13.8
		76.9	78.0	1.5	1.8	2.0	2.1	0.5	1.1	1.0	2.2	14.0	14.2
10	Anthony		78.8		1.0		1.6		0.2		0.3		13.5
		79.6	80.4	1.3	1.6	1.9	2.1	0.4	0.8	0.7	1.3	13.7	13.9
138	Queen		77.9		1.8		1.8		0.4		0.3		13.8
		78.5	79.1	2.1	2.4	2.0	2.3	0.6	0.8	0.5	0.9	14.0	14.2
232	Flock Mating		71.9		1.2		1.9		2.1		3.1		13.0
		73.0	74.1	1.5	1.8	2.1	2.3	3.1	4.4	4.6	6.3	13.3	13.6
307	Babcock B-300		75.5		1.4		1.7		0.6		0.5		13.9
		76.1	76.7	1.6	2.0	2.0	2.2	0.8	1.1	0.9	1.3	14.1	14.3
306	Babcock B-370		72.8		0.8		1.6		0.4		0.6		13.3
		73.6	74.4	1.1	1.4	1.8	2.0	0.7	1.1	1.1	1.8	13.5	13.7
342	Rialto Gray		71.9		1.0		1.7		0.3		0.7		13.5
		73.2	74.5	1.2	1.4	1.8	2.0	1.0	1.9	1.7	3.3	13.7	13.9
293	Ball 551 A		75.4		1.2		1.9		0.1		0.3		13.7
		76.4	77.4	1.4	1.7	2.0	2.2	0.5	1.1	0.9	1.7	13.9	14.1
351	B x W 267		75.3		1.2		1.8		0.1		0.6		13.7
		76.7	78.1	1.4	1.6	1.9	2.0	0.5	1.3	1.8	3.5	13.9	14.1
20	Beamsdale 66		76.8		1.0		1.7		0.3		0.4		13.7
		77.8	78.8	1.2	1.5	1.9	2.1	0.7	1.4	1.0	2.0	14.0	14.3
22	Booth Line 351		76.5		1.2		1.8		0.2		0.1		13.8
		77.8	79.1	1.5	1.7	1.9	2.0	0.7	1.5	0.8	1.9	14.1	14.4
329	Booth Line 352		75.4		1.0		1.8		0.2		0.1		13.8
		76.7	78.0	1.2	1.4	2.0	2.1	0.7	1.5	0.8	1.9	14.0	14.2
230	Money Maker #2		76.4		1.0		1.6		0.2		0.5		13.9
		77.1	77.8	1.3	1.6	1.8	2.1	0.4	0.6	1.0	1.6	14.1	14.3

** If the confidence limits for two regressed means overlap, the two means are not significantly different at the 5% level.*

All Stocks Entered, with Regressed Means and 80% Confidence Limits for each Trait *(Continued)*

STOCK CODE	STRAIN OR TRADENAME	ALBUMEN QUALITY *(Haugh units)*		BLOOD SPOTS 1/8 INCH OR MORE *(%)*		BLOOD SPOTS LESS THAN 1/8 INCH *(%)*		MEAT SPOTS 1/8 INCH OR MORE *(%)*		MEAT SPOTS LESS THAN 1/8 INCH *(%)*		SHELL THICKNESS *(1/1000 inch)*	
		RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS
506	Kanaka White		73.7		0.8		1.6		1.4		2.4		13.8
		74.7	75.7	1.0	1.3	1.8	2.0	2.2	3.2	3.7	5.2	14.1	14.4
571	Monarch		72.3		0.9		1.5		0.6		2.4		13.9
		73.3	74.3	1.1	1.3	1.7	1.9	1.2	2.1	3.9	5.7	14.1	14.3
561	Burpee's #31		77.5		0.8		1.7		0.6		1.6		14.2
		78.7	79.9	1.0	1.2	1.8	1.9	1.3	2.3	3.2	5.2	14.5	14.8
544	Burpee's #321		74.5		0.8		1.7		0.3		1.8		14.0
		75.6	76.7	1.0	1.2	1.9	2.0	0.8	1.5	3.2	4.9	14.3	14.6
283	Cameron #924		78.0		1.1		1.7		0.3		0.6		13.8
		79.0	80.0	1.3	1.6	1.9	2.2	0.7	1.2	1.3	2.2	14.0	14.2
292	Carey E. J.'s		78.0		1.1		1.9		0.2		0.2		14.0
		79.1	80.2	1.4	1.6	2.1	2.2	0.7	1.4	0.7	1.6	14.2	14.4
357	Carey New E. J.'s		74.3		1.0		1.8		0.3		0.3		13.7
		75.7	77.1	1.2	1.4	1.9	2.0	0.9	1.8	1.2	2.6	13.9	14.1
304	Astronauts		75.2		1.3		1.6		0.1		0.2		13.7
		76.3	77.4	1.5	1.8	1.7	1.9	0.4	1.0	0.7	1.6	13.9	14.1
31	Hi-Cash		75.5		1.5		1.6		0.3		0.6		13.8
		76.2	76.9	1.8	2.1	1.9	2.1	0.6	0.9	1.1	1.8	14.0	14.2
343	EGGSecutive II		76.6		1.0		1.8		0.2		0.3		13.6
		77.9	79.2	1.2	1.4	1.9	2.0	0.7	1.5	1.1	2.5	13.9	14.2
558	Clark's #57		77.0		0.9		1.7		0.5		2.0		14.1
		78.0	79.0	1.1	1.4	1.9	2.1	1.1	1.9	3.3	5.0	14.3	14.5
508	Paymaster 101		74.3		0.9		1.8		9.6		10.6		13.5
		75.3	76.3	1.1	1.4	2.0	2.2	11.6	13.7	13.1	15.9	13.8	14.1
289	True-Line 365B		76.4		1.6		1.9		0.4		0.5		13.9
		77.1	77.8	1.9	2.3	2.2	2.4	0.8	1.2	1.0	1.7	14.1	14.3
330	True-Line #142		74.4		1.0		1.8		0.2		0.1		13.3
		75.7	77.0	1.2	1.4	1.9	2.1	0.7	1.5	0.8	1.9	13.6	13.9
309	Davis Combiner		76.2		0.9		1.8		8.7		18.4		13.4
		77.0	77.8	1.1	1.4	2.1	2.3	10.1	11.5	20.7	23.1	13.6	13.8
48	DeKalb 131		76.2		1.1		1.4		0.4		0.7		13.7
		76.8	77.4	1.3	1.6	1.6	1.8	0.7	1.1	1.2	1.9	13.9	14.1
277	DeKalb 151		77.9		1.3		1.5		0.4		0.5		13.7
		78.5	79.1	1.6	2.0	1.7	2.0	0.7	0.9	1.0	1.5	13.8	13.9
256	Del Rio		73.6		1.0		2.0		3.3		5.6		12.4
		74.9	76.2	1.2	1.4	2.1	2.2	4.9	6.7	8.0	10.9	12.7	13.0
310	Demler Regal		76.3		0.9		1.4		0.3		0.6		13.9
		76.9	77.5	1.2	1.4	1.6	1.9	0.4	0.6	1.0	1.4	14.1	14.3
346	Demler Royal		75.1		0.9		1.6		0.1		0.2		13.7
		76.2	77.3	1.2	1.4	1.8	2.0	0.5	1.0	0.7	1.5	14.0	14.3

** If the confidence limits for two regressed means overlap, the two means are not significantly different at the 5% level.*

All Stocks Entered, with Regressed Means and 80% Confidence Limits for each Trait *(Continued)*

STOCK CODE	STRAIN OR TRADENAME	ALBUMEN QUALITY (*Haugh units*)		BLOOD SPOTS: 1/8 INCH OR MORE (%)		BLOOD SPOTS: LESS THAN 1/8 INCH (%)		MEAT SPOTS: 1/8 INCH OR MORE (%)		MEAT SPOTS: LESS THAN 1/8 INCH (%)		SHELL THICKNESS (*1/1000 inch*)	
		RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS
514	deZeeuw 752		76.3		0.8		1.8		0.6		0.4		14.0
		77.2	78.1	1.0	1.3	2.0	2.2	1.1	1.9	1.0	1.9	14.3	14.6
575	deZeeuw 752A		76.0		0.9		1.8		0.1		0.4		14.1
		77.0	78.0	1.2	1.5	2.0	2.2	0.3	0.7	1.1	2.0	14.3	14.5
327	#681 Hybrids		73.9		1.1		1.7		0.1		0.1		13.6
		74.8	75.7	1.4	1.7	1.8	2.0	0.4	0.9	0.5	1.2	13.8	14.0
355	Echo Glen		78.4		1.0		1.8		0.3		0.3		13.6
		79.8	81.2	1.2	1.3	2.0	2.1	0.9	1.8	1.2	2.6	13.8	14.0
564	Starline		75.1		1.2		1.9		0.3		1.3		13.8
		76.3	77.5	1.4	1.7	2.0	2.2	0.8	1.7	2.6	4.4	14.1	14.4
350	Erath Mestiza		73.6		1.2		1.8		0.4		0.3		13.4
		75.0	76.4	1.4	1.6	1.9	2.0	1.0	2.0	1.2	2.6	13.7	14.0
311	Maxilay		76.2		1.7		1.7		0.3		0.4		13.8
		77.0	77.8	2.1	2.5	1.9	2.1	0.6	1.0	0.9	1.5	14.0	14.2
518	Fisher 103		76.8		1.1		1.8		0.0		0.2		13.9
		77.7	78.6	1.4	1.7	2.0	2.2	0.2	0.5	0.6	1.3	14.1	14.3
580	Fisher 303		70.9		0.8		1.7		0.0		0.6		13.9
		72.2	73.5	1.0	1.2	1.8	1.9	0.4	1.0	1.7	3.3	14.1	14.3
246	Forsgate F 160		78.8		1.0		1.7		0.2		0.5		13.6
		79.7	80.6	1.2	1.5	1.9	2.1	0.5	1.0	1.1	2.0	13.9	14.2
66	Garber G 200		80.4		0.5		1.2		0.1		0.5		14.2
		81.2	82.0	0.7	1.0	1.4	1.6	0.3	0.6	0.9	1.5	14.4	14.6
65	Garber G x 291		74.7		0.7		1.5		0.1		0.3		13.7
		75.5	76.3	1.0	1.2	1.7	2.0	0.4	0.7	0.7	1.4	13.9	14.1
69	Golden Sex Link		77.5		0.8		1.9		2.4		6.4		14.2
		78.8	80.1	0.9	1.1	2.0	2.1	3.8	5.4	9.1	12.2	14.5	14.8
70	Gasson's G 33		77.5		1.1		1.8		0.1		0.2		13.9
		78.6	79.7	1.3	1.6	2.0	2.1	0.5	1.1	0.7	1.6	14.2	14.5
72	Ghostley Pearl		78.6		1.0		1.3		0.2		0.4		14.0
		79.2	79.8	1.3	1.6	1.6	1.8	0.3	0.5	0.8	1.2	14.2	14.4
338	Ghostley Pearl 63		80.0		1.0		1.1		0.2		0.6		13.8
		80.8	81.6	1.2	1.5	1.3	1.5	0.4	0.6	1.1	1.8	14.0	14.2
243	Good's		76.0		1.2		1.9		0.3		0.3		13.6
		77.4	78.3	1.3	1.5	2.0	2.1	0.9	1.8	1.2	2.6	13.9	14.2
80	Criss Cross H 25		77.2		1.2		1.7		0.2		0.3		13.9
		77.9	78.6	1.5	1.9	2.0	2.2	0.5	0.9	0.7	1.3	14.1	14.3
84	Super Nick		77.1		1.2		1.9		0.2		0.2		13.6
		78.2	79.3	1.5	1.8	2.1	2.3	0.6	1.2	0.6	1.4	13.8	14.0
337	Group I		76.8		0.8		1.7		5.9		19.2		13.1
		77.8	78.8	1.0	1.3	1.8	2.0	7.5	9.3	22.4	25.7	13.3	13.5

** If the confidence limits for two regressed means overlap, the two means are not significantly different at the 5% level.*

All Stocks Entered, with Regressed Means and 80% Confidence Limits for each Trait *(Continued)*

STOCK CODE	STRAIN OR TRADENAME	ALBUMEN QUALITY (*Haugh units*)		BLOOD SPOTS 1/8 INCH OR MORE (%)		BLOOD SPOTS LESS THAN 1/8 INCH (%)		MEAT SPOTS 1/8 INCH OR MORE (%)		MEAT SPOTS LESS THAN 1/8 INCH (%)		SHELL THICKNESS (*1/1000 inch*)	
		RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS
225	Sex Link		76.4		0.6		2.0		6.2		10.8		13.3
		77.2	78.0	0.8	1.1	2.2	2.5	7.4	8.7	12.7	14.8	13.5	13.7
86	Sex Link		74.0		1.5		2.2		2.3		12.3		13.7
		75.0	76.0	1.8	2.1	2.4	2.6	3.4	4.7	14.9	17.7	14.0	14.3
88	Nick Chick		78.4		1.1		1.7		0.3		0.4		13.9
		79.0	79.6	1.3	1.6	2.0	2.2	0.4	0.6	0.7	1.1	14.1	14.3
252	Mark II		78.7		1.0		1.5		0.3		0.3		13.5
		79.5	80.3	1.3	1.6	1.7	1.9	0.6	1.0	0.7	1.3	13.7	13.9
275	Breed Cross		73.3		0.8		1.7		0.3		0.6		13.5
		74.3	75.3	1.0	1.3	1.9	2.1	0.7	1.4	1.3	2.4	13.8	14.1
316	H-K-Cross		74.8		1.4		1.7		0.3		0.8		13.8
		76.1	77.4	1.6	1.8	1.8	1.9	0.8	1.7	2.0	3.6	14.0	14.2
92	Honegger Layer		76.6		1.0		1.6		0.1		0.2		13.9
		77.2	77.8	1.3	1.6	1.8	2.1	0.3	0.5	0.5	1.0	14.1	14.3
93	Honegger Layer 62		77.5		1.0		1.7		0.2		0.1		13.5
		78.7	79.9	1.2	1.5	1.9	2.1	0.7	1.4	0.4	1.2	13.7	13.9
321	Honegger H-80		73.6		0.8		1.6		0.9		1.2		13.4
		74.4	75.2	1.0	1.3	1.8	2.0	1.4	2.0	1.9	2.9	13.6	13.8
276	Comet		75.8		0.6		1.8		8.9		19.6		13.1
		76.6	77.4	0.8	1.0	2.0	2.3	10.2	11.5	21.8	24.1	13.3	13.5
314	Hy-Line 934-F		75.2		0.7		1.4		0.1		0.3		13.8
		75.9	76.6	1.0	1.2	1.6	1.8	0.3	0.6	0.7	1.1	14.0	14.2
240	Hy-Line 934-H		72.5		0.7		1.0		0.1		0.3		13.8
		73.0	73.5	0.9	1.2	1.2	1.3	0.2	0.3	0.6	0.9	14.0	14.2
101	H-3-W		76.1		1.6		1.8		0.3		0.3		13.8
		76.8	77.5	1.9	2.2	2.1	2.3	0.5	0.7	0.7	1.2	14.0	14.2
340	H-3-W-2		76.9		1.3		1.7		0.0		0.5		13.8
		77.6	78.3	1.6	1.9	1.9	2.2	0.1	0.2	1.0	1.6	14.0	14.2
108	Kerr's 409 C		79.0		0.7		1.7		0.1		0.2		13.8
		80.0	81.0	1.0	1.2	1.9	2.2	0.3	0.7	0.6	1.2	14.0	14.2
341	Kerr's P-K 26		77.3		1.1		1.8		0.1		0.4		13.8
		78.5	79.7	1.3	1.6	1.9	2.1	0.5	1.1	1.1	2.2	14.1	14.4
109	Park's Keystone		76.5		1.0		1.8		0.1		0.6		13.7
		77.6	78.7	1.2	1.5	2.0	2.2	0.5	1.1	1.4	2.6	14.0	14.3
110	Kimber K 137		80.3		0.9		1.1		0.4		0.6		14.3
		80.8	81.3	1.1	1.4	1.3	1.5	0.6	0.7	1.0	1.5	14.5	14.7
111	Kimber K 141		76.5		1.3		1.8		0.2		0.7		14.3
		77.6	78.7	1.5	1.8	1.9	2.1	0.7	1.3	1.5	2.6	14.6	14.9
112	Kimber K 155		78.3		0.7		1.6		0.6		0.4		14.1
		79.0	79.7	0.9	1.2	1.8	2.0	1.0	1.5	0.8	1.5	14.3	14.5

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All Stocks Entered, with Regressed Means and 80% Confidence Limits for each Trait *(Continued)*

STOCK CODE	STRAIN OR TRADENAME	ALBUMEN QUALITY (*Haugh units*)		BLOOD SPOTS				MEAT SPOTS				SHELL THICKNESS (*1/1000 inch*)	
				1/8 INCH OR MORE (%)		LESS THAN 1/8 INCH (%)		1/8 INCH OR MORE (%)		LESS THAN 1/8 INCH (%)			
		RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS
347	Kimber K 222		75.4		1.0		1.8		0.1		0.3		13.9
		76.6	77.8	1.2	1.4	1.9	2.1	0.6	1.3	1.0	2.1	14.1	14.3
344	Buff Sex Link		76.2		1.1		1.8		4.0		6.3		13.8
		77.7	79.2	1.2	1.4	1.9	2.0	5.7	7.7	9.2	12.6	14.1	14.4
227	K Cross		73.6		0.9		1.8		0.4		0.9		13.4
		74.9	76.2	1.1	1.3	1.9	2.0	1.0	2.0	2.0	3.7	13.6	13.8
582	Law's Red Cross		76.2		1.0		1.7		3.2		7.6		13.4
		77.5	78.8	1.1	1.3	1.8	1.9	4.8	6.6	10.6	14.0	13.6	13.8
117	Buff Sex Link		75.8		0.9		2.1		8.1		16.9		13.4
		76.6	77.4	1.2	1.5	2.3	2.6	9.5	10.9	19.2	21.6	13.6	13.8
581	Macdonald 321		72.3		1.2		1.8		0.6		1.5		14.1
		73.7	75.1	1.4	1.7	2.0	2.1	1.4	2.5	3.1	5.1	14.4	14.7
348	M-333-T		75.8		1.0		1.8		0.4		0.1		13.7
		77.2	78.6	1.2	1.4	1.9	2.0	1.1	2.1	0.7	1.9	14.0	14.3
354	Musser		77.3		1.2		1.9		0.3		0.3		14.0
		78.7	80.1	1.4	1.6	2.0	2.1	0.9	1.8	1.2	2.6	14.2	14.4
555	Red x Sussex		75.1		1.1		2.0		3.7		11.2		13.7
		76.3	77.5	1.3	1.5	2.2	2.3	5.3	7.2	14.6	18.3	14.0	14.3
526	Noble N-60		73.9		1.2		1.9		0.3		1.3		13.9
		75.1	76.3	1.4	1.7	2.0	2.2	0.9	1.8	2.6	4.4	14.2	14.5
358	Norco Gray		72.4		1.0		1.8		0.2		0.4		13.5
		73.7	75.0	1.2	1.4	1.9	2.0	0.8	1.6	1.3	2.7	13.8	14.1
143	Efficiency		76.9		1.1		1.9		0.3		0.3		13.6
		78.3	79.7	1.2	1.4	2.0	2.1	0.9	1.8	1.2	2.6	13.8	14.0
37	Reg. Cornell Contr.		77.2		1.5		1.9		0.3		0.5		13.7
		77.9	78.6	1.8	2.2	2.1	2.4	0.5	0.8	1.0	1.5	13.9	14.1
257	Reg. Red Control		74.5		1.0		1.8		3.2		7.4		13.2
		75.8	77.1	1.2	1.4	2.0	2.1	4.8	6.6	10.3	13.6	13.5	13.8
157	Reg. Red x Cornell		74.3		1.0		1.7		4.4		10.1		13.8
		75.4	76.5	1.3	1.5	1.9	2.1	5.9	7.6	12.6	15.3	14.0	14.2
567	Oka 93		75.2		1.1		1.8		0.3		1.3		13.6
		76.3	77.4	1.3	1.6	1.9	2.1	0.8	1.6	2.7	4.5	13.9	14.2
152	Princess 55		80.1		0.9		1.6		0.2		0.3		13.6
		81.0	81.9	1.1	1.4	1.8	2.1	0.6	1.1	0.8	1.6	13.8	14.0
234	Duchess 60		80.2		0.9		1.9		0.3		0.3		13.8
		81.6	83.0	1.1	1.3	2.0	2.1	0.8	1.7	1.2	2.5	14.0	14.2
345	Countess 75		77.0		1.2		1.9		0.4		0.5		13.7
		78.2	79.4	1.5	1.8	2.0	2.2	1.0	1.8	1.3	2.5	14.0	14.3
159	Randall Gray x Leg.		74.5		0.9		1.8		0.2		0.5		13.6
		75.6	76.7	1.1	1.3	2.0	2.1	0.6	1.2	1.2	2.2	13.8	14.0

* *If the confidence limits for two regressed means overlap, the two means are not significantly different at the 5% level.*

All Stocks Entered, with Regressed Means and 80% Confidence Limits for each Trait *(Continued)*

STOCK CODE	STRAIN OR TRADENAME	ALBUMEN QUALITY (*Haugh units*)		BLOOD SPOTS 1/8 INCH OR MORE (%)		BLOOD SPOTS LESS THAN 1/8 INCH (%)		MEAT SPOTS 1/8 INCH OR MORE (%)		MEAT SPOTS LESS THAN 1/8 INCH (%)		SHELL THICKNESS (*1/1000 inch*)	
		REGRESSED MEAN	80%* CONF. LIMITS	REGRESSED MEAN	80%* CONF. LIMITS	REGRESSED MEAN	80%* CONF. LIMITS	REGRESSED MEAN	80%* CONF. LIMITS	REGRESSED MEAN	80%* CONF. LIMITS	REGRESSED MEAN	80%* CONF. LIMITS
160	Rapp Linecross		76.4		1.2		1.7		0.3		0.4		13.8
		77.2	78.0	1.5	1.8	1.9	2.2	0.6	1.0	0.9	1.5	14.0	14.2
585	Raynor R 12		74.0		1.1		1.8		0.7		1.2		13.7
		75.4	76.8	1.3	1.5	2.0	2.1	1.5	2.6	2.5	4.4	14.0	14.3
586	Raynor R 63		75.2		1.0		1.8		0.9		2.0		14.2
		76.3	77.4	1.3	1.5	2.0	2.2	1.7	2.7	3.4	5.2	14.4	14.6
164	White Austra		72.1		1.0		1.7		0.7		1.3		13.8
		73.4	74.7	1.2	1.4	1.8	2.0	1.5	2.7	2.8	4.7	14.1	14.4
249	Super-Triway		74.8		0.7		1.9		3.4		12.3		13.6
		75.8	76.8	0.9	1.2	2.1	2.3	4.6	6.1	15.0	17.8	13.8	14.0
525	Keyline 110		77.0		1.2		1.8		0.1		0.8		13.9
		78.3	79.6	1.3	1.5	2.0	2.1	0.5	1.3	1.9	3.7	14.2	14.5
591	Keyline 110 B		77.1		1.1		1.8		0.2		0.2		13.9
		78.5	79.9	1.3	1.5	2.0	2.1	0.6	1.4	0.9	2.2	14.2	14.5
576	Keyline 110C		78.1		1.2		1.6		0.1		0.6		13.7
		79.4	80.7	1.4	1.6	1.7	1.9	0.4	1.1	1.6	3.2	14.0	14.3
566	Corvette A1		77.3		1.2		1.7		0.3		1.6		13.7
		78.3	79.3	1.5	1.8	1.9	2.1	0.8	1.4	2.7	4.1	13.9	14.1
583	La Chateauguay 583		77.2		0.9		1.8		0.0		0.3		13.8
		78.6	80.0	1.1	1.3	1.9	2.0	0.3	1.0	1.1	2.5	14.1	14.4
584	La Chateauguay 593		73.9		1.0		1.8		0.0		0.3		13.6
		75.3	76.7	1.2	1.4	1.9	2.1	0.2	0.7	1.1	2.4	13.9	14.2
588	Keystones		77.6		1.0		1.9		0.7		0.9		13.9
		79.0	80.4	1.2	1.4	2.0	2.1	1.5	2.6	2.1	3.9	14.2	14.5
295	K Cross		77.4		1.2		0.5		1.6		0.4		13.8
		78.3	79.2	1.5	1.8	1.0	1.7	1.8	2.0	1.0	1.8	14.0	14.2
180	EGG Champs		73.4		1.1		1.7		0.2		0.2		13.8
		74.6	75.8	1.3	1.6	1.8	2.0	0.7	1.4	0.8	1.8	14.0	14.2
324	Egg Lines		75.2		1.2		1.6		0.2		0.7		13.9
		76.2	77.2	1.5	1.7	1.8	2.0	0.7	1.4	1.6	2.9	14.1	14.3
181	Starcross 288		75.0		1.2		1.8		0.5		0.8		13.9
		75.6	76.2	1.4	1.7	2.1	2.4	0.7	0.9	1.2	1.8	14.1	14.3
315	Starcross 292		73.9		1.1		1.8		0.2		1.0		14.0
		75.0	76.1	1.4	1.7	2.0	2.2	0.6	1.2	2.0	3.2	14.2	14.4
328	Starcross 444		72.7		0.7		1.7		0.4		0.3		13.5
		73.6	74.5	0.9	1.2	1.9	2.1	0.8	1.3	0.8	1.5	13.7	13.9
333	Starcross 555		75.6		1.1		1.9		3.2		6.6		13.1
		76.8	78.0	1.3	1.5	2.1	2.2	4.8	6.5	9.3	12.4	13.4	13.7
572	Smyth 501 x 547		74.9		1.4		2.1		0.2		0.2		13.7
		76.1	77.3	1.7	1.9	2.2	2.4	0.6	1.3	0.9	2.1	14.0	14.3

* *If the confidence limits for two regressed means overlap, the two means are not significantly different at the 5% level.*

All Stocks Entered, with Regressed Means and 80% Confidence Limits for each Trait *(Continued)*

STOCK CODE	STRAIN OR TRADENAME	ALBUMEN QUALITY (*Haugh units*)		BLOOD SPOTS 1/8 INCH OR MORE (%)		BLOOD SPOTS LESS THAN 1/8 INCH (%)		MEAT SPOTS 1/8 INCH OR MORE (%)		MEAT SPOTS LESS THAN 1/8 INCH (%)		SHELL THICKNESS (*1/1000 inch*)	
		RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS	RE-GRESSED MEAN	80%* CONF. LIMITS
533	Pearlette		72.9		0.6		1.7		0.3		0.7		13.8
		73.9	74.9	0.8	1.1	1.9	2.1	0.7	1.3	1.5	2.6	14.1	14.4
186	Stever SC-300		74.6		0.9		1.7		0.2		0.3		13.9
		75.4	76.2	1.2	1.5	1.9	2.2	0.6	1.0	0.8	1.5	14.1	14.3
190	Stone's H 56		77.5		0.6		1.3		0.1		0.7		13.9
		78.3	79.1	0.8	1.1	1.5	1.7	0.3	0.6	1.3	2.0	14.1	14.3
336	Golden Sex Link		76.1		1.0		1.9		2.9		9.7		13.6
		77.2	78.3	1.2	1.5	2.0	2.2	4.0	5.4	12.1	14.6	13.8	14.0
196	Wisco White		73.6		1.2		1.8		0.4		0.1		13.7
		74.9	76.2	1.4	1.6	1.9	2.0	1.0	1.9	0.6	1.7	13.9	14.1
199	Townline SC 30		77.4		1.1		1.9		0.2		0.4		13.8
		78.4	79.4	1.3	1.6	2.1	2.3	0.6	1.2	1.0	1.9	14.0	14.2
556	Belmont 292		75.3		1.1		1.7		0.2		0.9		13.9
		76.3	77.3	1.3	1.6	1.8	2.0	0.7	1.3	1.9	3.1	14.2	14.5
534	Belmont 292 A		77.0		1.1		1.8		0.0		0.3		13.9
		78.1	79.2	1.3	1.6	2.0	2.1	0.3	0.8	1.0	2.0	14.1	14.3
325	Pure Line		78.1		1.3		1.9		0.1		0.7		13.8
		79.2	80.3	1.5	1.8	2.1	2.2	0.5	1.2	1.7	3.1	14.1	14.4
202	All Red		79.6		0.9		1.7		5.2		11.7		13.2
		80.9	82.2	1.1	1.3	1.9	2.0	7.0	9.2	15.1	18.9	13.4	13.6
587	Mac 250		77.1		1.1		1.8		0.9		1.6		14.2
		78.4	79.7	1.3	1.5	1.9	2.0	1.8	3.0	3.2	5.3	14.5	14.8
353	Warren B-63		73.7		1.0		1.7		0.0		0.2		13.6
		74.9	76.1	1.3	1.5	1.8	2.0	0.2	0.7	0.8	1.8	13.9	14.2
42	Warren Darby DX		76.7		1.2		1.8		0.2		0.5		14.0
		77.5	78.3	1.5	1.8	2.1	2.3	0.4	0.7	1.0	1.6	14.2	14.4
250	Warren J. J.		75.6		1.1		1.8		0.2		0.4		14.1
		76.5	77.4	1.4	1.7	2.0	2.2	0.5	1.1	1.0	1.8	14.3	14.5
305	Sex-Sal-Link-F		76.8		0.5		1.7		4.8		11.9		13.3
		77.5	78.2	0.6	0.9	2.0	2.2	5.7	6.7	13.7	15.6	13.5	13.7
349	New Red		75.3		1.1		1.8		3.0		10.9		13.3
		76.7	78.1	1.2	1.4	1.9	2.0	4.5	6.3	14.6	18.6	13.6	13.9
319	Welp Line 542		73.7		1.1		1.7		0.3		0.2		13.6
		75.0	76.3	1.3	1.5	1.9	2.0	1.0	1.9	1.0	2.2	13.9	14.2
212	Welp Line 901		74.8		1.2		1.7		0.0		0.1		13.1
		75.9	77.0	1.5	1.7	1.9	2.1	0.2	0.6	0.7	1.6	13.3	13.5
290	Welp Line 937		76.6		1.8		1.7		0.4		0.2		13.8
		77.2	77.8	2.1	2.5	2.0	2.3	0.6	0.8	0.6	1.1	13.9	14.0
298	White Cross		74.2		0.9		1.7		0.1		0.2		13.0
		75.2	76.2	1.1	1.4	1.9	2.1	0.3	0.8	0.7	1.5	13.2	13.4
219	Austra-White		77.4		0.6		1.4		2.0		4.1		13.7
		78.4	79.4	0.8	1.0	1.5	1.7	3.0	4.2	5.8	7.8	13.9	14.1

** If the confidence limits for two regressed means overlap, the two means are not significantly different at the 5% level.*

Stocks Entered in 1963-64 Random Sample Egg Production Tests
(Listed alphabetically and showing tests entered)

Stock Code	Breeder	Stock	No. Entries	Alta.	Ariz.	Ark.	Br. Col.	Calif.	Cent. Can.	Fla.	Iowa	Kansas	Minn.	Mo.	New Bruns.	N. H.	N. J.	N. C. Y.	N. C.	Penna.	R. I.	Tenn.	Texas	Wisc.
317	Allstate	LX 360	2															X						X
339	Allstate	LX 363	1										X											
5	Ames	Ames 424	1					X																
8	Ames	Ames 505	1												X									
537	Andrews	Polka Dot	2				X		X															
578	Andrews	Leghorn	2				X		X															
145	Animal Res. Inst.	Random Bred	3						XX															X
570	Animal Res. Inst.	Kentville R. B.	2						XX															
10	Anthony	White Leghorn	8											X			X	X		XX	X	X		X
138	Arbor Acres	Queen	13			X		X			X	X	X	X		X	X	X	X	X			X	X
232	Avery	Flock Mating	1																		X			
307	Babcock	Babcock B-300	15				X	X		X	X	X	X	X			X	X	X	X	X	X	X	X
306	Babcock	Babcock B-370	5					X		X				X						X		X		
342	Balfore-Guthrie	Rialto Gray	1					X																
293	Ball	Ball 551 A	2															X		X				
351	Baum	B x W 267	1															X						
20	Beamsdale	Beamsdale 66	2											X					X					
22	Booth	Booth Line 351	1											X										
329	Booth	Booth Line 352	1											X										
230	Brender	Moneymaker #2	8			X							X	X			X	X		X		X		X
506	Buchanan	Kanaka White	3	X			X		X															
571	Buchanan	Monarch	2				X		X															
561	Burpee	Burpee's #31	1												X									
544	Burpee	Burpee 321	1												X									
283	Cameron	Cameron 924	5											X				X	X	X		X		
292	Carey	Carey E. J's	2											X				X						
357	Carey	Carey New E. J's	1																	X				
304	Cashman	Astronauts	2										X	X										
31	Cashman	Hi-Cash	8			X	X		X					X				X	X	X			X	
343	Childers	EGGSecutive II	1					X																
558	Clark	Clark's 57	2						X						X									
508	Clark	Paymaster 101	3	X					X						X									
289	Colonial	True Line 365 B	5			X			X					X				X		X				
330	Colonial	True Line 142	1											X										
309	Davis	Davis Combiner	5					X								X			X	X	X			

Stocks Entered in 1963-64 Random Sample Egg Production Tests - Continued
(Listed Alphabetically and showing tests entered)

Stock Code	Breeder	Stock	No. Entries	Alta.	Ariz.	Ark.	Br. Col.	Calif.	Cent. Can.	Fla.	Iowa	Kansas	Minn.	Mo.	New Bruns.	N. H.	N. J.	C. N. Y.	N. C.	Penna.	R. I.	Tenn.	Texas	Wisc.
48	DeKalb	DeKalb 131	7	X				X		XX				X									X	X
277	DeKalb	DeKalb 151	14		X			X		X		X	X	X			X	X	X	X		X	XX	X
256	Del Rio	Del Rio Red	1		X																			
310	Demler	Demler Regal	14			X	X	X		X			X			X	X	X	X	X		X	XX	X
346	Demler	Demler Royal	4					X		X				X						X				
514	deZeeuw	deZeeuw 752	2	X					X															
575	deZeeuw	deZeeuw 752 A	4	X			X		X						X									
327	Eby's	#681 Hybrids	3											X					X				X	
355	Echo Glen	Leghorns	1																	X				
564	Elander	Starline	1						X															
350	Erath	Erath Mestiza	1																				X	
311	Evans	Evans Maxilay	5					X						X							X	X	X	
518	Fisher	Fisher 103	4	X			X		X						X									
580	Fisher	Fisher 303	1						X															
246	Forsgate	Forsgate F 160	2														X			X				
66	Garber	Garber G-200	7					X		X							X	X		X			X	X
65	Garber	Garber G x 291	4					X						X						X		X		
69	Garrison	Golden Sex Link	1																	X				
70	Gasson	Gasson G-33	2											X										X
72	Ghostley	Ghostley Pearl	7			X												X	X	X	X		X	X
338	Ghostley	Ghostley Pearl 63	11			X		X		X	X	X	X	X		X	X					X		X
243	Good	Good's Leghorn	1																	X				
80	Hansen	Criss Cross H-25	6				X							X				X		X		X		X
84	Hanson	Super Nick	3											X	X			X						
337	Harco	Group I RIR	2													X			X					
225	Harco	Harco Sex Link	5												X	X		X		X	X			
86	Hardy	Hardy Sex-Link	1													X								
316	Heisey	H-K Cross	1																	X				
88	H & N	H & N Nick Chick	21	X		X	X	X		XXX	X	X	X	X			X	X	X	XX		X	XXX	X
252	H & N	H & N Mark II	3											X						X				X
275	H & N	H & N Breed Cross	1					X																
92	Honegger	Honegger Layer	11			X	X	X		XXX				X				X			X	X		X
93	Honegger	Honegger Layer 62	2											X					X					
321	Honegger	Honegger H-80	3													X						X		X
276	Hubbard	Hubbard Comet	5													X		X	X	X	X			

Stocks Entered in 1963-64 Random Sample Egg Production Tests - Continued
(Listed Alphabetically and showing tests entered)

Stock Code	Breeder	Stock	No. Entries	Alta.	Ariz.	Ark.	Br. Col.	Calif.	Cent. Can.	Fla.	Iowa	Kansas	Minn.	Mo.	New Brns.	N. H.	N. J.	C. N. Y.	N. C.	Penna.	R. I.	Tenn.	Texas	Wisc.
314	Hy-Line	Hy-Line 934-F	6		X	X		X		X												X	X	
240	Hy-Line	Hy-Line 934 H	16		X	X		X	X	XX	X	X	X			X	X		X		X	X	XX	
101	Ideal	Ideal H-3-W	5					X		X				X									X	X
340	Ideal	Ideal H-3-W 2	11			X		X			X		X	X			X		X		X		XX	X
108	Kerr	Kerr 409C	2					X						X										
341	Kerr	Kerr P-K 26	2										X											X
109	Keystone	Keystone Leghorns	2															X		X				
110	Kimber	Kimber K 137	19		X		X	X		XX	X	X	X	X		X	X	X	X	XX	X	X	X	X
111	Kimber	Kimber K 141	1					X																
112	Kimber	Kimber K 155	4		X					X				X									X	
347	Kimber	Kimber K 222	2					X																X
344	Kingstowne	Buff Sex Link	1																		X			
227	Klongland	Klongland K-Cross	1																					X
582	Law	Red Cross	1												X									
117	Lawton	Buff Sex Link	5											X		X		X		X	X			
581	McDonald College	McDonald 321	1						X															
348	Mathews	Mathews M-333T	1																					X
354	Musser	Musser Leghorn	1																	X				
555	Nelson	Red x Sussex	1												X									
526	Noble	Noble N-60	1						X															
358	Norco	Norco Gray	1					X																
143	Norris	Efficiency Leghorn	1																	X				
37	No. Cen. Reg. Lab.	Reg. Cornell Contr.	8			X		X		X				X				X				X	X	X
257	No. Cen. Reg. Lab.	Reg. Red Control	1																		X			
157	No. Cen. Reg. Lab.	Reg. Red x Cornell	1					X																
567	Oka Group	Oka 93	1						X															
152	Pa.-Ind. Farm Br.	Princess 55	4															X	X	X				X
234	Pa.-Ind. Farm Br.	Dutchess 60	1																	X				
345	Pa.-Ind. Farm Br.	Countess 75	3											X								X		X
159	Randall	Gray x Leghorn	1					X																
160	Rapp	Rapp Linecross	6				X			X				X			X	X						X
585	Raynor	Raynor R-12	1						X															
586	Raynor	Raynor R-63	2						X						X									
164	Richardson	White Austra	1					X																
249	Riddle Spring	Super Triway	1													X								

Stocks Entered in 1963-64 Random Sample Egg Production Tests - Continued
(Listed Alphabetically and showing tests entered)

Stock Code	Breeder	Stock	No. Entries	Alta.	Ariz.	Ark.	Br. Col.	Calif.	Cent. Can.	Fla.	Iowa	Kansas	Minn.	Mo.	New Bruns.	N. H.	N. J.	C. N. Y.	N. C.	Penna.	R. I.	Tenn.	Texas	Wisc.
525	ROP Breeders	Keyline 110	1	X																				
591	ROP Breeders	Keyline 110 B	1				X																	
576	ROP Breeders	Keyline 110 C	1						X															
566	St. Augustin	Corvette A-1	2						X						X									
583	Ste. Martine Coop.	La Chateauguay 583	1						X															
584	Ste. Martine Coop.	La Chateauguay 593	1						X															
588	Sanders	Sanders Keystones	1												X									
295	Schaible	Schaible K-Cross	2														X			X				
180	Schuyler	EGG Champs	1															X						
324	Schuyler	Egg Lines	2																	X		X		
181	Shaver	Starcross 288	14					X	X		X			X	X		X	X	X	X	X	X	XX	X
315	Shaver	Starcross 292	3						X											X			X	
328	Shaver	Starcross 444	4				X		X				X	X										
333	Shaver	Starcross 555	1												X									
572	Smyth	501 x 547	1				X																	
533	Starline	Pearlette	3	X			X		X															
186	Stever	Stever SC 300	4														X		X	X		X		
190	Stone	Stone H-56	3					X			X						X							
336	Sturtevant	Golden Sex Link	1													X								
196	Sunnyside	Wisco White	1																					X
199	Townline	Townline SC 30	3											X						X				X
556	Triska	Belmont 292	2	X					X															
534	Triska	Belmont 292 A	2	X					X															
325	Univ. of Tenn.	Pure Line	1																			X		
202	Vancrest	Vancrest All Red	1															X						
587	Vriends	Mac 250	1						X															
353	Warren	Warren B-63	2					X														X		
42	Warren	Warren-Darby DX	6			X							X	X						X	X			X
250	Warren	Warren JJ	2					X												X				
305	Warren	Sex-Sal-Link-F	9				X							X	X	X	X	X		X	X			X
349	Webster	Webster New Red	1															X						
319	Welp	Welp Line 542	1																					X
212	Welp	Welp Line 901	1			X																		
290	Welp	Welp Line 937	8			X		X			X	X	X									X	X	X
298	White	White Cross	1					X																
219	Wood	Austra White	1					X																

This two-year summary includes performance data on 105 stocks that were entered in both the 1962-63 and 1963-64 tests and 36 stocks that were entered only in the 1963-64 tests. The 1962-63 tests were conducted at 30 different locations, and the 1963-64 tests were conducted at 33 locations. However, only 19 locations in 1962-63 and 29 locations in 1963-64 reported data on all of the 16 traits. Tests that were not included in the computation of the regressed means for each of the 16 traits are shown under the heading "Tests Not Included" in the tabulation on page 37.

The performance data were reported by replicate pens by those tests with replicates. In five tests where the replicate pens had less than 40 birds, the replicate data for each stock were combined, and the simple average of the replicates was used. This was done to more nearly equalize the variance among pens throughout all tests. The number of pens and the number of stocks tested at each location for the two years are given in the table on page 32.

The percentage data for both years for the six traits: growing mortality, laying mortality, large blood spots, small blood spots, large meat spots, and small meat spots were converted to angles with the arc sin transformation prior to analysis. However, the test-year adjustment factors, shown in the table on pages 32 through 36, and the regressed means and confidence limits, shown for these traits in the alphabetical listing of stocks, are given in percent.

The replicate data were analyzed by least-squares procedures to obtain the test-year adjustment factors found on pages 32 through 36, and the repeatability estimates and the correlations among pens within tests found on page 31. The test-year adjustment factors were then used to adjust the simple stock average for test and year effects. The adjusted stock averages (the least-squares stock means) were then regressed toward the overall mean ($\hat{\mu}$) to account for variations in number of tests entered, number of years entered and number of replicates per test. The formula used to compute the regressed means is:

$$\text{Regressed Mean} = \hat{\mu} + \frac{r_{2/C}}{1+(k_3-1)x_1+(k_1-k_3)x_2+(k_2-k_3)r_1+[(1/C)-k_1-k_2+k_3]r_2}(\hat{s})$$

where:

$\hat{\mu}$ = the average of the test and year adjusted stock means.

r_1 = repeatability within year.

r_2 = repeatability from year-to-year.

x_1 = the correlation among replicates within year and test.

x_2 = the correlation among pens of the same stock from year-to-year for the same test.

k_1 = an average of the number of pens per test (averaged over years).

k_2 = an average of the number of pens per year (averaged over tests).

k_3 = an average of the number of replicates per test-year subclass.

C = the diagonal inverse element for that stock. The reciprocal of C, i.e., $\frac{1}{C}$, is equal to nk_3 if the assumption is made that the adjustments for test-year effects are made without error; where n is the number of test-year subclasses in which that stock is entered. The regressed means for percent growing mortality and feed efficiency were calculated using the reciprocal of the total number of entries for each stock as an approximation of $\frac{1}{C}$. A study conducted on last year's data indicated that approximating $\frac{1}{C}$ in this manner changed the regressed means only in the second decimal place and does not effect the ranking of stocks for these two traits. Since separate analyses were necessary for each of these two traits, the approximation was used to expedite completion of the analyses necessary for this report. Diagonal inverse elements ($\frac{1}{C}$) were used for all other traits.

$\hat{s}$ = the test-year adjusted stock average minus the overall mean $\hat{\mu}$.

The correlations used in computing the regression coefficient were obtained from estimates of the variance components for stocks ($\hat{\sigma}^2_s$), the stock-X-test interaction ($\hat{\sigma}^2_{st}$), the stock-X-year interaction ($\hat{\sigma}^2_{sy}$) and the random error ($\hat{\sigma}^2_e$). The variance component estimates were obtained by equating the computed mean squares for these effects to their expectations. The mean square for stocks was adjusted for the test-year subclass by least-squares procedures for the effects of stocks and the test-year subclasses. The three-factor interaction was assumed to be non-existent. Ratios of the variance component estimates that were used to compute the correlations are given below:

Correlation Among Replicates $= x_1 = \dfrac{\hat{\sigma}^2_s + \hat{\sigma}^2_{st} + \hat{\sigma}^2_{sy}}{\hat{\sigma}^2_s + \hat{\sigma}^2_{st} + \hat{\sigma}^2_{sy} + \hat{\sigma}^2_e}$

Repeatability from Test-to-Test (within year) $= r_1 = \dfrac{\hat{\sigma}^2_s + \hat{\sigma}^2_{sy}}{\hat{\sigma}^2_s + \hat{\sigma}^2_{st} + \hat{\sigma}^2_{sy} + \hat{\sigma}^2_e}$

Correlation from Year-to-Year (same test) $= x_2 = \dfrac{\hat{\sigma}^2_s + \hat{\sigma}^2_{st}}{\hat{\sigma}^2_s + \hat{\sigma}^2_{st} + \hat{\sigma}^2_{sy} + \hat{\sigma}^2_e}$

Repeatability from Test-to-Test (between year) $= r_2 = \dfrac{\hat{\sigma}^2_s}{\hat{\sigma}^2_s + \hat{\sigma}^2_{st} + \hat{\sigma}^2_{sy} + \hat{\sigma}^2_e}$

An approximate standard error (SE) was computed for each regressed mean as follows:

$$SE = b \sqrt{C(\hat{\sigma}^2_e + k_1\hat{\sigma}^2_{st} + k_2\hat{\sigma}^2_{sy})}$$

where b is the regression coefficient given above in the formula for the regressed mean. Confidence limits were then computed for each regressed mean as follows:

$$\text{Regressed Mean} \pm 1.3\ SE$$

The constant 1.3 was selected so that the probability of the confidence limits overlaping by chance alone between any two means would be about .03. This makes the tests of significance among regressed means almost comparable to using Duncan's range test at the .05 level of probability.

The following terms and definitions should be of help in interpreting the analytical procedures:

Overall Mean: The average of the test-year adjusted means for all stocks. This estimates what the overall average would have been if all stocks had been entered in all tests in both years.

Range: The range represents the difference between the expected maximum and minimum performance among the 143 stocks, based on the regressed means.

Test-Year Adjustment Factor: The amount added to a given location in a given year to bring it to the average of all the location-year subclasses which had complete data. These factors were determined on an intra-stock basis with a least-squares analysis and they are given on pages 32 through 36.

Repeatability Within Year: An intra-class correlation which measures the tendency for common stocks to rank the same from test-to-test within year. Theoretically, it can vary from 0.00 to 1.00.

Repeatability Between Years: A correlation which measures the tendency for common stocks to rank the same from test-to-test from one year to another. The difference between the repeatability within year and repeatability between years indicates the relative importance of the stock-X-year interaction.

Correlation from Year-to-Year Within Tests: A correlation which measures the tendency for common stocks to rank the same from year-to-year when tested at the same location. The difference between the repeatability between years and the correlation from year-to-year within tests indicates the relative importance of the stock-X-test interaction.

Correlation Among Replicates: This correlation measures the repeatability among replicates of the same stock in the same test and year. The higher the correlation among replicates the less need there is for replication of stocks within test and year.

Confidence Limits: The confidence limits for each regressed mean are computed so that the probability is about .80 that the "true" stock mean lies within the interval. They are presented in this report, however, for the purpose of providing approximate tests of significance for differences among stocks.

ANALYTICAL DATA FOR THE TRAITS MEASURED

Trait	Overall Means	Regressed Means		Repeatability		Correlations Within Test	
		Min.	Max.	Within Year (r_1)	Year-to-Year (r_2)	Among Replicates (x_1)	Year-to-Year (x_2)
Growing Mortality (%)	4.0	2.0	5.1	0.083	0.083	0.083	0.083
Laying Mortality (%)	10.1	5.6	14.9	0.160	0.143	0.168	0.152
Age at 50% Production	178.6	167	189	0.482	0.394	0.664	0.577
Hen-Housed Egg Production	214.3	199	240	0.313	0.281	0.362	0.331
Hen-Day Egg Production (%)	67.8	65.3	74.9	0.276	0.252	0.345	0.320
Income Over Feed and Chick Cost	1.88	1.39	2.37	0.409	0.324	0.515	0.431
Feed Per 24 Oz. Eggs	4.57	4.14	5.26	0.517	0.466	0.622	0.571
Egg Weight	24.9	23.3	26.4	0.619	0.513	0.643	0.537
Large and Extra Large Eggs (%)	68.3	53.7	83.3	0.584	0.479	0.715	0.610
Body Weight	4.9	4.1	6.8	0.877	0.855	0.895	0.873
Albumen Quality	77.8	72.2	81.6	0.600	0.580	0.626	0.607
Large Blood Spots (%)	1.0	0.6	2.1	0.134	0.099	0.334	0.299
Small Blood Spots (%)	1.9	1.0	2.4	0.047	0.047	0.322	0.322
Large Meat Spots (%)	1.2	0.1	11.6	0.462	0.462	0.572	0.572
Small Meat Spots (%)	2.1	0.4	22.8	0.705	0.671	0.833	0.799
Shell Thickness	13.9	12.7	14.6	0.526	0.493	0.622	0.589

THE ADJUSTMENT FACTORS USED TO ADJUST FOR TEST DIFFERENCES

Test	No. Pens		Stocks Tested		Percent Mortality			
					Growing Period		Laying Period	
	1963	1964	1963	1964	1963	1964	1963	1964
Alberta	14	22	7	11	+0.30	+1.49	-0.01	+2.10
Arizona - Floor	--	6	--	6	----	+0.02	----	-0.89
Arizona - Cage	--	6	--	6	----	+0.02	----	+0.56
Arkansas Conventional	--	32	--	16	----	-0.77	----	-0.02
Arkansas Controlled	--	32	--	16	----	0.00	----	+0.25
British Columbia	28	38	14	19	0.00	+0.29	-0.09	0.00
California - Cage	32	--	32	--	----	----	-0.10	----
California - Floor	64	--	32	--	+0.06	----	+0.05	----
California Combined	--	76	--	38	----	+0.01	----	-0.07
Central Canada	42	68	19	32	+0.41	+0.48	-0.59	-0.24
Florida	46	48	18	17	0.00	-0.01	+0.05	-0.36
Iowa #1	20	--	10	--	-0.09	----	+0.15	----
Iowa #7	10	10	10	10	-2.49	-0.04	+0.14	+0.97
Iowa #8	10	10	10	10	-0.43	-0.44	-0.17	-0.21
Iowa #15	--	20	--	10	----	-1.17	----	-0.25
Iowa #20	20	20	10	10	0.00	-1.11	+0.04	-0.04
Iowa #21	20	20	10	10	-1.49	-1.73	+0.10	-0.34
Kansas #1	8	8	8	8	-0.20	-0.19	+0.20	-0.48
Kansas #3	8	8	8	8	-0.03	-0.48	0.00	-0.04
Kansas #4	8	8	8	8	0.00	-0.02	-0.54	-0.29
Kansas #5	8	8	8	8	-0.11	-0.12	-0.68	-0.09
Minnesota #1	14	16	14	16	-0.07	-0.31	-0.04	+0.17
Minnesota #2	14	16	14	16	-1.45	-0.29	-0.16	+1.21
Missouri	40	43	40	43	+0.58	0.00	+0.58	+0.49
New Brunswick	14	32	7	16	+1.09	+0.01	+0.75	+0.10
New Hampshire #1	16	15	16	15	+0.21	+0.07	+0.03	+0.46
New Hampshire #2	16	15	16	15	-0.02	-0.05	+0.44	+0.12
New Hampshire #4	16	15	16	15	-0.27	+0.07	+0.03	+0.21
New Jersey	20	20	20	20	-0.17	+0.01	-0.16	-0.03
Central New York	28	32	28	32	+0.03	0.00	-0.35	+0.22
North Carolina	34	40	17	20	+0.36	-2.03	+0.98	-1.51
Pennsylvania	42	46	42	44	-1.68	-0.10	-0.36	+0.57
Rhode Island	19	18	19	18	+0.52	+0.73	0.00	+0.25
Tennessee	48	50	24	25	+0.01	-0.04	-0.69	0.00
Texas	27	29	20	22	0.00	-0.10	-0.36	-0.01
Wisconsin	33	36	33	36	+0.30	0.00	-0.01	-3.55

THE ADJUSTMENT FACTORS USED TO ADJUST FOR TEST DIFFERENCES

Test	Days of Age at 50% Production		Egg Production Hen Housed (No.)		Egg Production Hen-Day (%)		Income Over Feed and Chick Cost ($)	
	1963	1964	1963	1964	1963	1964	1963	1964
Alberta	+ 5.27	+ 0.96	- 0.11	-18.86	+ 0.03	-3.61	+0.53	-0.33
Arizona - Floor	-----	+13.33*	-----	+ 5.49	-----	+2.46	----	+0.47
Arizona - Cage	-----	+13.33*	-----	-12.24	-----	+0.31	----	-0.09
Arkansas Conventional	-----	- 0.52	-----	+26.80	-----	+6.38	----	+0.67
Arkansas Controlled	-----	- 8.83	-----	+16.02	-----	+3.11	----	+0.15
British Columbia	- 7.60	+ 3.99	+12.50	+ 0.38	- 3.34	-0.07	+0.26	-0.10
California - Cage	- 2.70	-----	- 3.85	-----	+13.46	----	----	----
California - Floor	+ 4.56	-----	-39.71	-----	+ 5.13	----	-0.61	----
California Combined	-----	+ 4.73	-----	-26.59	-----	+9.65	----	+0.35
Central Canada	+ 4.14	+ 1.78	+12.42	+ 2.45	- 0.53	-2.13	+0.24	-0.15
Florida	+ 6.41	+ 4.58	- 5.02	+ 3.66	- 1.28	-0.45	-0.58	-1.14
Iowa #1	-30.48	-----	+56.62	-----	+11.31	----	----	----
Iowa #7	- 4.53	- 3.89	+12.56	- 2.03	+ 0.45	-2.04	----	----
Iowa #8	- 4.43	- 4.39	+19.40	+14.30	+ 1.60	+0.20	----	----
Iowa #15	-----	-12.29	-----	+36.12	-----	+6.20	----	----
Iowa #20	- 4.73	- 3.79	+43.58	+17.88	+10.86	+2.16	----	----
Iowa #21	-19.83	-35.74	+28.60	+35.08	+ 3.65	+1.31	----	----
Kansas #1	-23.30	-33.20	+19.80	+21.90	+ 2.26	+1.76	----	+1.09
Kansas #3	-26.92	-19.20	+16.25	+ 2.34	+ 2.11	-2.52	----	+0.29
Kansas #4	- 0.80	- 8.70	+24.31	+11.39	+ 4.03	+0.86	----	+0.36
Kansas #5	-20.80	-29.70	+22.80	+13.75	+ 2.08	-0.96	----	+0.46
Minnesota #1	+11.14	+ 2.94	-10.12	-17.61	- 0.55	-3.45	+0.36	+0.47
Minnesota #2	+ 4.43	+ 3.82	- 6.69	- 7.91	- 0.11	+0.06	+0.24	+0.86
Missouri	+ 6.54	+12.30	-22.36	-21.66	- 5.02	-3.13	-0.64	-0.73
New Brunswick	+ 9.17	+10.95	- 5.73	-11.38	- 1.88	-4.08	-0.44	-0.55
New Hampshire #1	-15.21	-12.60	+18.40	+19.67	+ 2.72	+3.22	+0.71	+0.80
New Hampshire #2	-17.65	-16.00	- 9.51	- 0.15	- 5.99	-3.14	-0.51	+0.45
New Hampshire #4	- 1.90	+ 0.60	+15.50	- 5.47	+ 4.22	-1.62	-0.17	-0.02
New Jersey	- 4.02	+ 1.22	+12.91	- 5.45	+ 5.88	-1.79	+0.27	+0.23
Central New York	- 0.18	- 0.79	+ 8.36	- 5.08	+ 0.13	-1.17	-0.65	-0.82
North Carolina	+ 5.25	+ 7.68	-19.19	+ 5.35	- 3.67	-2.14	+0.10	+1.15
Pennsylvania	+12.18	- 0.99	- 4.63	+ 8.82	- 1.63	+4.02	-0.46	+0.54
Rhode Island	+ 2.15	+ 9.60	-12.71	-13.65	- 3.65	-2.65	-1.70	-1.21
Tennessee	+ 2.68	+ 5.46	+27.57	+ 3.73	+ 4.74	+1.59	+0.30	-0.72
Texas	+ 4.63	+ 3.30	+15.64	+11.64	+ 6.95	+3.63	+0.03	+0.12
Wisconsin	- 2.62	+ 4.59	- 7.93	+13.06	- 4.30	-1.98	-0.47	+0.59

* The birds in these two tests were housed together until after reaching 50% Production. Thus the test adjustment factors are identical.

THE ADJUSTMENT FACTORS USED TO ADJUST FOR TEST DIFFERENCES

Test	Feed Per 24 Oz. of Eggs (Lbs.)		Egg Weight (Oz.)		% Large and Extra Large Eggs		Body Weight (Lbs.)	
	1963	1964	1963	1964	1963	1964	1963	1964
Alberta	- 0.73	- 0.03	- 0.11	+ 0.22	+ 5.78	+ 4.38	-0.25	-0.19
Arizona - Floor	-----	- 0.25	-----	+ 0.08	-----	+18.56	----	+0.28
Arizona - Cage	-----	+ 0.24	-----	- 0.16	-----	+12.62	----	+0.30
Arkansas Conventional	-----	- 0.98	-----	+ 0.29	-----	- 8.99	----	+0.05
Arkansas Controlled	-----	- 0.52	-----	+ 0.50	-----	- 7.80	----	+0.04
British Columbia	0.00	- 0.07	- 1.69	- 0.21	+ 6.78	+ 7.38	+0.13	-0.20
California - Cage	-----	-----	- 0.38	-----	- 5.15	-----	+0.01	----
California - Floor	+ 0.28	-----	0.00	-----	- 9.69	-----	-0.10	----
California Combined	-----	- 0.18	-----	- 0.32	-----	- 8.96	----	-0.17
Central Canada	+ 0.10	+ 0.23	- 0.07	+ 0.06	+ 7.75	+ 3.60	-0.14	-0.24
Florida	+ 0.13	+ 0.52	+ 0.39	+ 0.41	- 6.60	- 3.17	+0.10	+0.09
Iowa #1	-----	-----	- 0.28	-----	- 6.84	-----	-0.08	----
Iowa #7	-----	-----	+ 0.46	+ 0.58	+ 7.41	+10.36	+0.01	+0.17
Iowa #8	-----	-----	+ 0.31	+ 0.89	+ 4.60	+17.09	-0.01	+0.14
Iowa #15	-----	-----	-----	- 0.05	-----	- 2.66	----	+0.04
Iowa #20	-----	-----	+ 0.14	+ 1.03	+ 1.20	+20.12	+0.35	+0.30
Iowa #21	-----	-----	+ 0.47	+ 0.02	+ 8.04	- 1.47	+0.02	+0.22
Kansas #1	- 0.56	- 0.36	- 0.34	- 0.96	- 2.90	- 5.76	+0.04	+0.34
Kansas #3	+ 0.19	+ 0.38	+ 0.57	+ 0.08	+14.31	+ 5.64	+0.03	+0.20
Kansas #4	-----	+ 0.40	+ 0.01	+ 0.30	+ 1.68	+ 6.13	+0.02	+0.32
Kansas #5	+ 0.19	+ 0.32	- 0.03	+ 0.30	+ 2.08	+ 1.83	+0.14	+0.37
Minnesota #1	- 0.24	+ 0.37	- 0.25	- 0.08	- 2.72	- 3.53	-0.17	-0.24
Minnesota #2	- 0.05	- 0.26	- 0.13	+ 0.24	- 8.62	- 9.19	+0.02	-0.07
Missouri	- 0.38	- 0.05	+ 0.37	+ 0.20	+ 0.28	+ 4.84	+0.11	+0.04
New Brunswick	+ 0.30	+ 0.32	+ 0.16	+ 0.16	+10.27	+11.79	-0.31	-0.39
New Hampshire #1	- 0.62	- 0.24	+ 0.58	+ 0.96	+ 3.95	+ 5.64	+0.38	+0.33
New Hampshire #2	+ 0.28	+ 0.04	- 0.18	+ 0.04	- 5.02	- 2.85	+0.11	+0.21
New Hampshire #4	+ 0.27	+ 0.38	- 0.24	+ 0.11	+ 1.46	+ 5.06	+0.02	-0.12
New Jersey	- 0.52	+ 0.09	+ 1.23	- 0.30	+14.40	+ 8.71	-0.19	-0.06
Central New York	- 0.11	+ 0.34	- 0.55	- 0.72	- 0.15	- 4.07	-0.18	+0.02
North Carolina	0.00	+ 0.07	- 0.24	- 0.10	- 9.15	- 3.04	-0.22	-0.27
Pennsylvania	+ 0.25	- 0.10	+ 0.38	- 0.44	+10.34	+ 1.78	+0.14	+0.07
Rhode Island	- 0.01	- 0.15	- 0.47	+ 0.15	-15.32	-17.90	-0.05	-0.01
Tennessee	- 0.34	+ 0.26	- 0.21	- 0.50	- 9.06	-13.82	-0.08	-0.18
Texas	+ 0.34	+ 0.16	+ 0.04	+ 0.21	+ 0.40	+ 9.11	+0.13	+0.16
Wisconsin	+ 0.29	- 0.18	- 0.04	+ 0.51	-10.47	- 7.13	-0.05	-0.05

THE ADJUSTMENT FACTORS USED TO ADJUST FOR TEST DIFFERENCES

Test	Albumen Quality Haugh Units		% Blood Spots 1/8 Inch or More		% Blood Spots Less than 1/8 Inch	
	1963	1964	1963	1964	1963	1964
Alberta	+1.96	-1.89	-0.05	-0.01	+0.03	+0.16
Arizona - Floor	----	+0.54	----	+0.96	----	+0.71
Arizona - Cage	----	+0.52	----	+0.53	----	+0.54
Arkansas Conventional	----	+6.51	----	+0.04	----	+0.02
Arkansas Controlled	----	+4.27	----	+0.17	----	+0.04
British Columbia	+6.09	+0.09	-0.05	-0.02	-0.07	0.00
California - Cage	+2.54	----	-0.58	----	-0.36	----
California - Floor	+3.11	----	-0.23	----	0.00	----
California Combined	----	+2.28	----	-0.46	----	-0.49
Central Canada	+8.41	+8.29	-0.11	-0.04	0.00	+0.16
Florida	-0.92	-1.06	-0.25	-0.15	0.00	0.00
Iowa #1	-4.56	----	+0.69	----	+0.24	----
Iowa #7	-4.69	-9.67	+1.07	+0.05	-0.24	+0.45
Iowa #8	-4.04	-9.42	+1.07	+0.26	+0.07	+0.29
Iowa #15	----	-6.25	----	+0.43	----	-0.21
Iowa #20	-2.76	-6.50	+1.07	+0.20	-0.25	+0.41
Iowa #21	-2.89	-7.50	+1.29	+0.17	0.00	+0.07
Kansas #1	-7.89	-7.68	+0.01	-0.03	+0.42	+0.06
Kansas #3	-4.48	-5.92	+0.09	+0.02	-0.03	-0.07
Kansas #4	-5.75	-6.02	-0.02	0.00	-0.02	+0.31
Kansas #5	-5.48	-3.73	0.00	+0.29	+0.23	-0.19
Minnesota #1	-4.28	-11.45	+0.16	+0.17	+1.05	+1.29
Minnesota #2	-5.25	-9.19	+0.34	+0.01	+0.53	+0.96
Missouri	-1.76	-1.54	0.00	+0.65	-0.12	+0.02
New Brunswick	+4.92	+7.48	-0.44	0.00	-1.04	+0.07
New Hampshire #1	+7.06	+2.61	+0.05	+0.14	-0.04	-0.20
New Hampshire #2	+6.81	-2.29	+0.09	-0.04	-0.49	-0.08
New Hampshire #4	+4.56	+0.73	-0.16	-0.14	-0.59	-0.94
New Jersey	-4.07	-3.18	+0.13	+0.28	-0.04	-0.03
Central New York	-2.17	-2.50	-0.03	-0.15	-0.07	-0.40
North Carolina	-1.11	-1.61	-0.06	-0.02	-0.12	-0.03
Pennsylvania	+0.51	-0.94	+0.11	-0.04	+0.05	+0.03
Rhode Island	+5.33	+2.03	-0.09	-0.05	0.00	-0.02
Tennessee	+3.74	+2.98	-0.14	-0.08	-0.01	-0.31
Texas	-2.17	-3.99	0.00	0.00	+0.24	+0.09
Wisconsin	-3.75	-2.37	-0.09	-0.12	-0.01	0.00

THE ADJUSTMENT FACTORS USED TO ADJUST FOR TEST DIFFERENCES

Test	% Meat Spots 1/8 Inch or More		% Meat Spots Less than 1/8 Inch		Shell Thickness 1/1000 Inch	
	1963	1964	1963	1964	1963	1964
Alberta	+0.10	0.00	+0.06	+0.45	+0.79	+0.74
Arizona - Floor	----	+0.24	----	+0.30	----	-1.54
Arizona - Cage	----	+0.61	----	+0.65	----	-1.47
Arkansas Conventional	----	-0.02	----	+0.05	----	+0.93
Arkansas Controlled	----	0.00	----	-0.01	----	+1.06
British Columbia	-0.20	+0.05	-0.14	+0.06	+1.53	+1.37
California - Cage	+0.12	----	+0.43	----	-0.47	----
California - Floor	+0.24	----	+0.67	----	+0.06	----
California Combined	----	+0.17	----	+0.42	----	-0.17
Central Canada	-0.66	-3.13	-1.23	-1.30	+1.63	+1.58
Florida	+0.03	0.00	+0.71	+0.50	+0.01	-0.03
Iowa #1	+0.45	----	+0.69	----	+0.54	----
Iowa #7	+0.45	-0.14	+0.69	+0.10	+0.89	+0.36
Iowa #8	+0.21	-0.69	+0.39	+0.10	+0.85	+0.33
Iowa #15	----	-0.01	----	+0.81	----	+0.54
Iowa #20	+0.45	-3.23	+0.69	+0.16	+0.91	+0.66
Iowa #21	+0.45	-0.83	+0.53	+0.21	+0.58	+0.05
Kansas #1	-1.53	-0.36	-1.54	-0.07	-0.41	-0.42
Kansas #3	-0.47	-0.01	-0.58	-0.01	-0.21	-0.34
Kansas #4	-1.80	-0.29	-1.36	-0.22	-0.53	-0.15
Kansas #5	-2.29	-0.02	-1.62	-0.01	-0.80	-0.47
Minnesota #1	+0.38	+0.25	+0.80	+0.77	-1.11	-0.23
Minnesota #2	+0.33	+0.10	+0.80	+0.62	-1.21	+0.65
Missouri	+0.36	+0.45	+0.30	+0.57	-1.73	-0.47
New Brunswick	+0.01	0.00	-0.58	-0.85	+1.81	+1.53
New Hampshire #1	-0.48	0.00	-2.46	-1.00	-0.25	-0.86
New Hampshire #2	-0.50	0.00	-3.72	-1.03	-0.32	-0.43
New Hampshire #4	-1.16	-0.43	-3.68	-2.03	-0.36	-0.48
New Jersey	+0.13	+0.48	-0.42	-0.03	-3.34	-2.39
Central New York	+0.17	+0.10	+0.29	+0.45	+1.25	+1.30
North Carolina	+0.05	+0.22	+0.01	+0.10	-0.46	-1.00
Pennsylvania	+0.65	+0.61	+0.97	+0.72	-0.63	-0.09
Rhode Island	-3.97	-4.37	-0.28	-0.29	-0.11	+1.18
Tennessee	+0.15	-0.05	+0.29	-0.40	+0.83	+1.24
Texas	+0.11	+0.15	+0.54	+0.71	-0.47	-0.40
Wisconsin	+0.05	+0.07	+0.32	+0.25	+0.41	+1.04

Definitions of Traits and Listing of Tests Which Were Not Included in the Analysis

Trait	Definition	Tests Not Included 1962-63 *	1963-64
Growing Mortality	Percent mortality to 150 days or subsequent age at housing.	Cal. (cage)	None
Laying Mortality	Percent laying house mortality computed from 150 days or subsequent age at housing to 500 days of age.	None	None
Age at 50% Production	Days of age to 50% production calculated from the first day of the first two consecutive days of 50% production for living birds in the entry at that time.	None	None
Hen-Housed Egg Production	Number of eggs per pullet housed to 500 days of age.	None	None
Hen-Day Egg Production	Percent hen-day production from the time the birds reached 50% production to 500 days of age.	None	None
Income Over Feed and Chick Cost	Income over feed and chick cost per pullet housed, with chick cost in 1,000 lots at hatch date adjusted for mortality (accidental deaths, sexing errors and missing chicks not included).	Cal. (cage) Iowa Kansas	Iowa
Feed per 24 oz. Eggs	Pounds of feed per 24 ounces of egg produced, computed from a bulk weighing of eggs one day every two weeks or at least 2 days a month at equal intervals.	Cal. (cage) Iowa Kans. (farm 4)	Iowa
Egg Weight	Average annual egg weight computed from bulk weighings at least every two weeks or two days a month at equal intervals.	None	None
Large and Extra Large Eggs	Percent large and extra large eggs.	None	None
Body Weight	Body weight at end of test.	None	None
Albumen Quality	Albumen quality, Haugh units measured on one day's eggs per quarter or every three months, at equal intervals, broken-out basis.	None	None
Large Blood Spots	Percentage of eggs with (one or more) large blood spots 1/8 inch or more, computed from at least 3 days' eggs per quarter, broken-out basis.	None	None
Small Blood Spots	Percentage of eggs with (one or more) small blood spots less than 1/8 inch, computed from at least 3 days' eggs per quarter, broken-out basis.	None	None
Large Meat Spots	Percentage of eggs with (one or more) large colored meat spots 1/8 inch or more, computed from at least 3 days' eggs per quarter, broken-out basis.	None	None
Small Meat Spots	Percentage of eggs with (one or more) small colored meat spots less than 1/8 inch, computed from at least 3 days' eggs per quarter, broken-out basis.	None	None
Shell Thickness	Shell thickness by direct measurement to nearest 1/1000 inch from at least one breakout each quarter.	None	None

* No data from Arizona or Arkansas available for this testing year.

MANAGEMENT SUMMARY

Test	Hatch Date 1963	Housing Date 1963	Length of Test (days)	No. Entries	No. Rep.	Birds per Rep.	MANAGEMENT Brooding	Rearing	Laying*	Sq. Feet per Bird	Lighting Rearing	Lighting Laying
Alberta	3/30	8/25	500	11	2	50	Litter	Range	Litter	3.4	Natural	14 hrs.
Arizona Floor	2/1	7/1	500	6	1	50	Litter	Litter	Litter	3.4	14 hrs.	14 hrs.
Arizona Cage	2/1	7/1	500	6	1	50	Litter	Litter	Cage 1	1.3	14 hrs.	14 hrs.
Ark. Conv.	3/27	8/14	500	16	2	50	Litter	Litter	Litter	2.5	Natural	14 hrs.
Ark. Contr.	3/27	8/14	500	16	2	50	Litter	Litter	Litter	2.5	Program 1/	Program 2/
Br. Columbia	3/28	8/25	500	19	2	68	Litter	Litter	Litter-Slat	1.8	6 hrs. light	14 to 19 hrs.
California	1/20	5/26	546	38	2-C	24	Litter	Litter	Cage 1 & 4	1.1	Natural	14 hrs.
					2-F	50	Litter	Litter	Litter	2.3	Natural	14 hrs.
Cen. Canada	3/26	8/22	500	34	2	60	Litter	Litter	Litter	3.2	Natural	14 hrs.
Florida	3/20	8/29	500	24	2	50	Litter	Litter	Litter	2.9	Nautral	14 hrs.
Iowa #7	2/21	7/18	488	10	2	60	----	Data Not Reported by Test			----	----
" #15	2/21	7/18	488	10	2	100	----	Data Not Reported by Test			----	----
" #20	4/4	9/1	488	10	2	110	----	Data Not Reported by Test			----	----
" #21	4/4	9/1	488	10	2	100	----	Data Not Reported by Test			----	----
Kansas #1	5/11	10/7	500	8	1	178	Litter	Lit.-Slat	Litter-Slat	1.7	Natural	14 hrs.
" #3	5/11	10/4	500	8	1	183	Litter	Litter	Litter	1.4	Natural	Natural 3/
" #4	5/11	10/1	500	8	1	110	Battery	Wire	Cage-55	0.7	Natural	14 hrs.
" #5	5/11	10/3	500	8	1	173	Litter	Lit.-Wire	Lit.-Wire	1.7	Natural	Natural 4/
Minnesota #1	3/25	8/23	500	16	1	100	Litter	Range	Litter-Slat	2.0	Natural	14 hrs.
" #2	3/28	8/26	500	16	1	60	Litter	Range	Litter-Slat	1.7	Natural	14 hrs.
Missouri	3/10	8/7	500	43	2	25	Litter	Range	Litter	3.8	Natural	14 hrs.
New Bruns.	3/27	8/25	495	16	2	58	Litter	Litter	Litter	2.3	14 hrs.	14 hrs.
New Hamp. #1	5/6	10/13	498	15	1	165	Litter	Litter	Litter	2.5	Natural	14 hrs.
" " #2	5/6	10/13	498	15	1	250	Litter	Litter	Litter	2.5	Natural	14 hrs.
" " #4	5/6	10/13	498	15	1	60	Litter	Range	Litter	2.5	Natural	14 hrs.
New Jersey-F	3/26	8/23	500	20	1	25	Litter	Litter	Litter	4.0	Natural	14 hrs.
" " -C	3/26	8/23	500	20	1	25	Litter	Litter	Cage-25	1.0	Natural	14 hrs.
Cent. N. Y.	2/22	7/19	500	33	1	50	Litter	Range	Litter	3.8	Natural	14 hrs.
No. Carolina	2/9	7/8	500	20	2	50	Litter	Litter	Litter	3.5	Natural	14 hrs.
Pennsylvania	4/27	9/22	500	46	2	25	Litter	Litter	Litter	3.4	Natural	14 hrs.
Rhode Island	5/3	9/30	500	18	2	28	Litter	Litter	Wire	2.8	Natural	14 hrs.
Tennessee	3/28	8/19	500	25	4	15	Litter	Litter	Cage-1	1.3	Natural	Natural 5/
Texas	3/3	7/30	500	29	6	8	Litter	Litter	Cage-1	1.3	Natural	14 hrs.
Wisconsin	3/3	7/30	500	36	2	25	Litter	Range	Litter	2.4	Natural	14 hrs.

* The number after the word cage indicates how many birds per cage.

1/ 14 hour day to 3 weeks; 6 hour day to 20 weeks. 2/ Increase light 15 minutes per week from 20 weeks.

3/ Natural daylight plus 3 to 5 hours artificial (increasing). 4/ Increase light program. 5/ 14 hours per day until 10 months; thereafter increase 15 minutes per week.

RATIONS												
Percent Protein			Meta. Energy** - Cal./lb.			C/P Ratio ***			Weeks Birds Are On			Test
Start.	Grow.	Lay.	Start.	Grow.	Lay.	Start.	Grow.	Lay.	Start.	Grow.	Lay.	
20.2	14.9	15.8	1235	1226	1326	60.0	82.0	84.0	8	12	51	Alberta
21.5	18.0	17.5	1335	1225	1338	62.0	68.0	76.4	8	12	51	Arizona Floor
21.5	18.0	17.5	1335	1225	1338	62.0	68.0	76.4	8	12	51	Arizona Cage
23.1	15.0	13.9	1496	1095	1227	64.7	72.9	88.0	8	12	51	Ark. Conv.
23.1	15.0	13.9	1496	1095	1227	64.7	72.9	88.0	8	12	51	Ark. Contr.
20.0	17.5	----	1294	----	----	63.0	----	----	6	15	50	Br. Columbia
22.6	17.8	16.9	1432	1382	1307	63.0	78.0	77.0	7	11	60	California
20.7	14.9	16.0	1300	1330	1360	63.0	89.0	85.0	10	12	49	Cen. Canada
22.0	17.4	16.9	1340	1371	1313	60.9	78.8	77.7	8	11	52	Florida
----	----	----	----	Data Not Reported by Test				----	--	--	--	Iowa #7
----	----	----	----	Data Not Reported by Test				----	--	--	--	" #15
----	----	----	----	Data Not Reported by Test				----	--	--	--	" #20
----	----	----	----	Data Not Reported by Test				----	--	--	--	" #21
21.0	16.0	17.0	----	----	----	----	----	----	6	12	53	Kansas #1
20.0	18.0	16.0	----	----	----	----	----	----	8	3	60	" #3
20.0	15.0	16.0	----	----	----	----	----	----	6	18	47	" #4
20.0	17.0	17.0	----	----	----	----	----	----	5	16	50	" #5
21.5	15.4	17.1	1256*	1257*	1260*	58.4	81.6	73.7	8	16	47	Minnesota #1
21.5	15.4	17.1	1256*	1257*	1260*	58.4	81.6	73.7	8	16	47	" #2
20.7	16.1	17.1	1355	1289	1311	65.6	79.9	76.8	9	16	46	Missouri
20.7	14.9	16.0	1300	1330	1360	63.0	89.0	85.0	8	14	50	New Bruns.
----	----	----	----	Data Not Reported by Test				----	8	13	50	New Hamp. #1
----	----	----	----	Data Not Reported by Test				----	8	13	50	" " #2
----	----	----	----	Data Not Reported by Test				----	8	13	50	" " #4
21.2	----	18.8	1227	----	1144	57.9	----	60.9	6	0	65	New Jersey-Floor
21.2	----	18.8	1227	----	1144	57.9	----	60.9	6	0	65	" " -Cage
----	----	16.8	----	----	1372	----	----	81.7	9	12	50	Cent. N. Y.
20.0	16.0	16.0	1200	1220	1160	60.0	76.0	72.0	8	13	50	No. Carolina
21.0	17.0	18.0	1300*	1357*	1354*	61.9	79.8	75.2	10	11	50	Pennsylvania
21.5	16.7	16.4	1280	1330	1286*	59.5	79.6	78.4	8	13	50	Rhode Island
21.9	17.2	16.8	1333	1347	1271	60.7	78.4	75.9	10	11	50	Tennessee
21.5	17.5	17.5	1264*	1324*	1376*	58.8	75.7	78.6	8	13	50	Texas
20.0	17.0	16.0	1205	1230	1270	60.0	72.0	79.0	6	5	50	Wisconsin
	14.0			1259			90.0			10		" "

* Approximate metabolizable energy computed from productive energy, using 70% as the conversion factor.

** Metabolizable energy is the maximum quantity of the energy of the feed which possibly may be used by the chicken.

*** Metabolizable calories divided by percent crude protein.

INTRODUCTION

The information contained in the Range Group Ranking section of this publication deals only with the records established during the 1963-64 test year.

The performance of each entry in the 21 Random Sample Egg Production Tests conducted during 1963-64 is reported as the Range Group Rank of the entry for the trait measured. These rankings were called Quartile Ranking in past years. However, the computations used to determine the rank was not changed and were determined in the following manner. For each trait the entries in each test were aligned in descending order from the most desirable to the least desirable performance. The "mean" or average performance for the trait was then determined. All entries above the mean are in range group 1 or 2 and those below the mean are in range group 3 or 4. The dividing point for the entries above or below the mean is the midpoint of the range between the mean and the top or bottom entry. To illustrate:

Stocks entered in the North Carolina test had a mean, or average, of 222.23 eggs for the trait "Eggs Per Pullet Housed." The highest average number of eggs laid by any entry in this test was 251.20 and the lowest average number laid by any entry was 192.30 eggs. To arrive at the dividing point between the 1st and 2d range groups, the mean (222.23) was subtracted from the highest number of eggs (251.20). The result, 28.97 eggs, was divided by two in order to get the midpoint of the range (14.49 eggs). This was subtracted from the highest average number of eggs (251.20 - 14.49) to arrive at the dividing point (236.71 eggs) between the 1st and 2d range groups. To determine the dividing point between the 3d and 4th range groups, the same precedure was used, except that the lowest average number of eggs (192.30) was subtracted from the mean (222.23 eggs). This difference, or range (29.93 eggs) was then divided by two and the result (14.97 eggs) was subtracted from the mean (222.23 - 14.97) to get the dividing point (207.26) between the 3d and 4th range groups. These determinations for each trait and test are tabulated on pages 42 through 46.

The breeders of the tested stocks are listed in alphabetical order and the Range Group Rankings of each entry of the stock is shown under the breeder's name. Each entry is also identified by the abbreviated name of the entrant. In some cases, the sample was drawn from a source other than the entrant's hatchery or supply flock. In such cases, the abbreviated name of the source of the sample is shown in parentheses following the entrant's name.

The listing of the entries into the four range groups, where all entries of each stock are listed together, permits the reader of the report to quickly evaluate a stock based on this method of analysis. It should be kept in mind, however, that this method provides just four broad classifications. One-teneth of an egg or one-tenth of a percent difference in mortality could put an entry up one Range Group Rank or down one Range Group Rank, depending on its place in the range grouping.

LIST OF ENTRANTS OTHER THAN BREEDER OF STOCK

Name and Address	Stock Entered
Amstutz Hatchery, 130 Plank Road, Somerset, Pennsylvania	H & N
Arizona Star Farm Hatchery, Tucson, Arizona	DeKalb
Arizona State Hatchery, Tucson, Arizona	Kimber
Atwood Hatchery, Comanche, Texas	H & N
B & C Hatchery, Neodesha, Kansas	Kimber
Babcock Hatchery, Inc., Lititz, Pennsylvania	Babcock
Bloomingdale Poultry Farm, Box 373, Valrico, Florida	Kimber
Brandenburg Hatchery, 735 Railroad Ave., Dunedin, Florida	DeKalb
Browder's Hatchery, Box 330, Tampa, Florida	Honegger

Name and Address	Stock Entered
Cook's Chick Hatchery, Truro, Nova Scotia	Ames
Coombs Poultry Farm, Inc., Sedgwick, Kansas	Hy-Line
Corrigan-Gonzalez Export Corp., 4001 N. W. 25th St., Miami, Florida	Hy-Line
DeWitt's Hatchery, Nacogdoches, Texas	Shaver
Fairview Poultry Farm, Pineville, Pennsylvania	Demler
Florin Farms, Inc., Mt. Joy, Pennsylvania	H & N
Florida Hen Ranch, 2300 N. Wingate Rd., Ft. Lauderdale, Florida	Honegger
Florida State Hatcheries, Box 666, Gainesville, Florida	Kimber
Frizzell Poultry Farm & Hatchery, 4818 97th Ave., Tampa, Florida	H & N
Garrison, Earl W., Inc., Bridgeton, New Jersey	Stever
Godshall's Hatchery, Souderton, Pennsylvania	H & N
Greider Leghorn Farms, Inc., Mt. Joy, Pennsylvania	Shaver
Grigsby's Hatchery, Box 65, Georgetown, Texas	DeKalb
Gulf Coast Hatchery, Inc., Box 361, Quincy, Florida	Babcock
Hall Bros. Hatchery, Inc., Wallingford, Connecticut	Demler
Hatchery Enterprises, Inc., Box 11065, Tampa, Florida	Demler
Hodges Poultry Farm & Hatchery, Box 154, Callahan, Florida	Babcock
Hubbard Farms, Inc., Lancaster, Pennsylvania	Kimber
Hy-Lay Hatcheries, Inc., Box 1111, Bryan, Texas	Hy-Line
Hy-Line Chicks, Box 730, Chatham, Ontario	Hy-Line
Joe's Poultry Farm, Box 347, Arcadia, Florida	DeKalb
Johnson Hatchery, Hamilton, Texas	Hy-Line
Kazmeier Hatchery, Box 791, Bryan, Texas	Hy-Line
Louisiana Hatcheries, Hammond, Louisiana	Ideal
Longnecker's Hatchery, Elizabethtown, Pennsylvania	Kimber
Maple Leaf Hatchery, 1420 N. Volusia Ave., Orange City, Florida	Rapp
Miami International Hatchery, Inc., Box 48-1005, Miami, Florida	Kimber
Musselwhite Hatchery, Box 569, Maitland, Florida	DeKalb
Oak Crest Hatcheries, Inc., Box 563, Jacksonville, Florida	H & N
Orange Blossom Hatchery, Box 6442, Jacksonville, Florida	Garber
Owens Hatchery, Dahlonega, Georgia	Ideal
Pierson-Craddock Hatchery, Box 511, Hamilton, Texas	DeKalb
Pine Acres Poultry Farm, Box 808, Lake City, Florida	H & N
Pine Air Poultry Acres, Box 843, Jacksonville, Florida	Honegger
Poultry Products, Inc., Box 66B, Winter Garden, Florida	Ideal
Rothway Hatcheries, Phoenix, Arizona	Hy-Line
Swift & Co., Box 588, Yoakum, Texas	Shaver
Tri-State Hatchery, Inc., Box 440, Marianna, Florida	Demler
Vance Hatchery, Shallowater, Texas	H & N
Voscinar Poultry Farm, Box 561, Brooksville, Florida	Ghostley
Wallace Hatchery, Inc., Box 11236, St. Petersburg, Florida	Hy-Line
Wallis, Edwin & Sons, Inc., Liverpool, Pennsylvania	Demler
Weaver's Hatchery, Lititz, Pennsylvania	Cashman
Western Hatcheries, Dallas, Texas	Kimber
Wheelock, Walter E., Chambersburg, Pennsylvania	Ghostley
Williams Poultry Farm & Hatchery, Box 302, Denison, Texas	H & N
Yeiser-Demler Chix, Inc., Winchester, Kentucky	Demler

SUMMARY OF IMPORTANT DATA FOR ALL RANDOM SAMPLE EGG LAYING TESTS

Trait Measured	Alberta		Arizona		Arkansas		British Columbia	
Net Income Over Feed and Chick Costs Per Pullet Housed - Ave.	$2.293		$1.792		$1.641		$2.038	
Range Group - 1	$2.570	2.431	$2.340	2.066	$2.130	1.885	$2.450	2.244
" " - 2	2.430	2.293	2.065	1.792	1.884	1.641	2.243	2.038
" " - 3	2.292	2.016	1.791	1.401	1.640	1.295	2.037	1.579
" " - 4	2.015	1.740	1.400	1.010	1.294	0.950	1.578	1.120
Eggs Per Pullet Housed - Ave.	238.25		228.97		203.24		221.70	
Range Group - 1	248.50	243.37	256.90	242.93	225.10	214.17	248.70	235.20
" " - 2	243.36	238.25	242.92	228.97	214.16	203.24	235.19	221.70
" " - 3	238.24	232.17	228.96	215.93	203.23	190.72	221.69	212.15
" " - 4	232.16	226.10	215.92	202.90	190.71	178.20	212.14	202.60
Days to 50% Production - Ave.	173.2		159.8		179.4		170.1	
Range Group - 1	167.0	170.1	153.0	156.4	165.0	172.2	164.0	167.1
" " - 2	170.2	173.2	156.5	159.8	172.3	179.4	167.2	170.1
" " - 3	173.3	177.1	159.9	164.4	179.5	190.2	170.2	173.6
" " - 4	177.2	181.0	164.5	169.0	190.3	201.0	173.7	177.0
% Mortality Growing Period - Ave.	0.67		3.80		5.67		2.24	
Range Group - 1	0.00	0.34	0.90	2.40	3.20	4.44	0.00	1.12
" " - 2	0.35	0.67	2.41	3.80	4.45	5.67	1.13	2.24
" " - 3	0.68	1.19	3.81	7.40	5.68	7.74	2.25	3.77
" " - 4	1.20	1.70	7.41	10.90	7.75	9.80	3.78	5.50
% Mortality Laying House - Ave.	3.64		10.85		9.56		9.52	
Range Group - 1	1.00	2.32	3.00	6.93	4.00	6.78	4.40	6.96
" " - 2	2.33	3.64	6.94	10.85	6.79	9.56	6.97	9.52
" " - 3	3.65	5.32	10.86	15.98	9.57	13.53	9.53	16.16
" " - 4	5.33	7.00	15.99	21.10	13.54	17.50	16.17	22.80
Egg Size - Average	24.69		25.17		24.48		24.98	
Range Group - 1	25.40	25.04	25.80	25.48	25.00	24.74	26.10	25.54
" " - 2	25.03	24.69	25.47	25.17	24.73	24.48	25.53	24.98
" - 3	24.68	24.44	25.16	24.93	24.47	23.99	24.97	24.19
" - 4	24.43	24.20	24.92	24.70	23.98	23.50	24.18	23.40
% Large & Extra Large Eggs - Ave.	64.98		54.55		77.44		60.45	
Range Group - 1	75.50	70.24	59.70	57.12	83.10	80.27	74.20	67.32
" " - 2	70.23	64.98	57.11	54.55	80.26	77.44	67.31	60.45
" " - 3	64.97	61.84	54.54	51.27	77.43	73.02	60.44	51.32
" " - 4	61.83	58.70	51.26	48.00	73.01	68.60	51.31	42.20
Pounds Feed Per 24 Oz. Eggs - Ave.	4.445		4.457		5.118		4.568	
Range Group - 1	4.190	4.318	4.010	4.234	4.740	4.929	4.210	4.389
" " - 2	4.319	4.445	4.235	4.457	4.930	5.118	4.390	4.568
" " - 3	4.446	4.563	4.458	4.904	5.119	5.409	4.569	5.029
" " - 4	4.564	4.680	4.905	5.350	5.410	5.700	5.030	5.490
Albumen - Haugh Units - Ave.	78.68		76.38		72.01		76.49	
Range Group - 1	83.20	80.94	81.60	78.99	76.40	74.20	81.80	79.14
" " - 2	80.93	78.68	78.98	76.38	74.19	72.01	79.13	76.49
" " - 3	78.67	77.44	76.37	74.94	72.00	69.70	76.48	73.99
" " - 4	77.43	76.20	74.93	73.50	69.69	67.40	73.98	71.50
Blood Spots - All Sizes - Ave.	3.08		1.17		2.72		4.48	
Range Group - 1	1.00	2.04	0.00	0.59	1.00	1.86	1.00	2.74
" " - 2	2.05	3.08	0.60	1.17	1.87	2.72	2.75	4.48
" " - 3	3.09	5.34	1.18	2.49	2.73	3.61	4.49	8.74
" " - 4	5.35	7.60	2.50	3.80	3.62	4.50	8.75	13.00

SUMMARY OF IMPORTANT DATA FOR ALL RANDOM SAMPLE EGG LAYING TESTS (Continued)

California		Central Canada		Florida		Iowa		Kansas	
$1.690		$2.004		$3.249		.....		$1.614	
$2.210	1.950	$2.970	2.487	$4.100	3.674	.....	.....	$1.800	1.707
1.949	1.690	2.486	2.004	3.673	3.249	.....	.....	1.706	1.614
1.689	1.215	2.003	1.457	3.248	2.754	.....	.....	1.613	1.437
1.214	0.740	1.456	0.910	2.753	2.260	.....	.....	1.436	1.260
254.16		215.59		225.53		207.59		217.13	
297.00	275.58	256.50	236.04	254.30	239.91	221.20	214.39	225.70	221.41
275.57	254.16	236.03	215.59	239.90	225.53	214.38	207.59	221.40	217.13
254.15	240.73	215.58	193.24	225.52	204.66	207.58	201.24	217.12	210.36
240.72	227.30	193.23	170.90	204.65	183.80	201.23	194.90	210.35	203.60
167.5		174.3		167.6		185.9		195.1	
158.0	162.8	164.0	169.2	161.0	164.3	182.0	184.0	191.0	193.1
162.9	167.5	169.3	174.3	164.4	167.6	184.1	185.9	193.2	195.1
167.6	173.3	174.4	179.7	167.7	173.8	186.0	190.0	195.2	200.1
173.4	179.0	179.8	185.0	173.9	180.0	190.1	194.0	200.2	205.0
2.86		2.12		3.90		0.76		5.44	
0.00	1.43	0.00	1.06	0.00	1.95	0.50	0.63	2.10	3.77
1.44	2.86	1.07	2.12	1.96	3.90	0.64	0.76	3.78	5.44
2.87	4.63	2.13	4.86	3.91	11.50	0.77	0.93	5.45	14.02
4.64	6.40	4.87	7.60	11.51	19.10	0.94	1.10	14.03	22.60
10.80		14.11		12.27		10.84		11.38	
5.40	8.10	3.50	8.82	5.00	8.64	7.20	9.02	5.90	8.64
8.11	10.80	8.83	14.11	8.65	12.27	9.03	10.84	8.65	11.38
10.81	16.20	14.12	25.61	12.28	20.39	10.85	12.72	11.39	13.24
16.21	21.60	25.62	37.10	20.40	28.50	12.73	14.60	13.25	15.10
25.24		24.68		24.54		24.65		25.18	
26.20	25.72	25.60	25.14	25.00	24.77	25.10	24.87	25.40	25.29
25.71	25.24	25.13	24.68	24.76	24.54	24.86	24.65	25.28	25.18
25.23	24.42	24.67	23.99	24.53	24.02	24.64	24.47	25.17	25.04
24.41	23.60	23.98	23.30	24.01	23.50	24.46	24.30	25.03	24.90
77.97		63.65		72.80		63.58		69.38	
83.40	80.68	73.80	68.72	79.40	76.10	72.60	68.09	73.30	71.34
80.67	77.97	68.71	63.65	76.09	72.80	68.08	63.58	71.33	69.38
77.96	70.28	63.64	55.12	72.79	65.70	63.57	59.54	69.37	67.59
70.27	62.60	55.11	46.60	65.69	58.60	59.53	55.50	67.58	65.80
4.462		4.451		3.816		.....		4.110	
4.100	4.281	4.000	4.226	3.390	3.603	.....	.....	3.970	4.040
4.282	4.462	4.227	4.451	3.604	3.816	.....	.....	4.041	4.110
4.463	4.906	4.452	4.716	3.817	4.103	.....	.....	4.111	4.210
4.907	5.350	4.717	4.980	4.104	4.390	.....	.....	4.211	4.310
74.46		67.70		78.59		85.17		83.89	
79.90	77.18	72.20	69.95	82.80	80.69	87.80	86.48	87.50	85.69
77.17	74.46	69.94	67.70	80.68	78.59	86.47	85.17	85.68	83.89
74.45	71.93	67.69	64.80	78.58	76.14	85.16	83.28	83.88	81.49
71.92	69.40	64.79	61.90	76.13	73.70	83.27	81.40	81.48	79.10
7.24		3.38		4.17		4.19		4.38	
2.20	4.72	0.60	1.99	2.00	3.09	1.60	2.90	2.60	3.49
4.73	7.24	2.00	3.38	3.10	4.17	2.91	4.19	3.50	4.38
7.25	9.97	3.39	4.84	4.18	6.04	4.20	6.55	4.39	5.14
9.98	12.70	4.85	6.30	6.05	7.90	6.56	8.90	5.15	5.90

SUMMARY OF IMPORTANT DATA FOR ALL RANDOM SAMPLE EGG LAYING TESTS (Continued)

Trait Measured	Minnesota		Missouri		New Brunswick		New Hampshire	
Net Income Over Feed and Chick Costs Per Pullet Housed - Ave.	$1.409		$2.737		$2.502		$1.772	
Range Group - 1	$1.760	1.584	$3.350	3.043	$3.050	2.776	$2.110	1.941
" " - 2	1.583	1.409	3.042	2.737	2.775	2.502	1.940	1.772
" " - 3	1.408	1.269	2.736	2.333	2.501	2.001	1.771	1.506
" " - 4	1.268	1.130	2.332	1.930	2.000	1.500	1.505	1.240
Eggs Per Pullet Housed - Ave.	238.40		246.18		227.38		220.86	
Range Group - 1	249.30	243.85	282.20	264.19	257.60	242.49	241.50	231.18
" " - 2	243.84	238.40	264.18	246.18	242.48	227.38	231.17	220.86
" " - 3	238.39	232.25	246.17	230.69	227.37	206.19	220.85	209.48
" " - 4	232.24	226.10	230.68	215.20	206.18	185.00	209.47	198.10
Days to 50% Production - Ave.	170.5		161.7		164.8		184.1	
Range Group - 1	168.0	169.3	150.0	155.9	159.0	161.9	175.0	179.6
" " - 2	169.4	170.5	156.0	161.7	162.0	164.8	179.7	184.1
" " - 3	170.6	173.3	161.8	168.4	164.9	167.9	184.2	189.6
" " - 4	173.4	176.0	168.5	175.0	168.0	171.0	189.7	195.0
% Mortality Growing Period - Ave.	5.78		4.24		3.11		2.67	
Range Group - 1	2.10	3.94	1.40	2.82	0.00	1.56	0.80	1.74
" " - 2	3.95	5.78	2.83	4.24	1.57	3.11	1.75	2.67
" " - 3	5.79	8.69	4.25	9.02	3.12	4.66	2.68	3.74
" " - 4	8.70	11.60	9.03	13.80	4.67	6.20	3.75	4.80
% Mortality Laying House - Ave.	7.53		6.61		8.68		5.89	
Range Group - 1	2.90	5.22	0.00	3.31	1.00	4.84	3.00	4.45
" " - 2	5.23	7.53	3.32	6.61	4.85	8.68	4.46	5.89
" " - 3	7.54	10.02	6.62	11.31	8.69	13.69	5.90	7.70
" " - 4	10.03	12.50	11.32	16.00	13.70	18.70	7.71	9.50
Egg Size - Average	24.97		24.64		25.19		25.27	
Range Group - 1	25.30	25.13	26.30	25.47	26.80	25.99	26.30	25.78
" " - 2	25.12	24.97	25.46	24.64	25.98	25.19	25.77	25.27
" " - 3	24.96	24.73	24.63	23.37	25.18	24.69	25.26	24.83
" " - 4	24.72	24.50	23.36	22.10	24.68	24.20	24.82	24.40
% Large & Extra Large Eggs - Ave.	76.75		63.17		61.92		73.90	
Range Group - 1	81.30	79.02	81.70	72.43	77.40	69.66	85.40	79.65
" " - 2	79.01	76.75	72.42	63.17	69.65	61.92	79.64	73.90
" " - 3	76.74	74.62	63.16	41.73	61.91	56.46	73.89	68.35
" " - 4	74.61	72.50	41.72	20.30	56.45	51.00	68.34	62.80
Pounds Feed Per 24 Oz. Eggs - Ave.	4.326		4.484		4.331		4.443	
Range Group - 1	4.090	4.208	4.150	4.317	3.870	4.101	3.970	4.207
" " - 2	4.209	4.326	4.318	4.484	4.102	4.331	4.208	4.443
" " - 3	4.327	4.463	4.485	4.777	4.332	4.716	4.444	4.627
" " - 4	4.464	4.600	4.778	5.070	4.717	5.100	4.628	4.810
Albumen - Haugh Units - Ave.	87.76		79.13		69.67		76.63	
Range Group - 1	91.30	89.53	83.80	81.46	72.40	71.03	80.10	78.36
" " - 2	89.52	87.76	81.45	79.13	71.02	69.67	78.35	76.63
" " - 3	87.75	85.43	79.12	76.16	69.66	67.98	76.62	74.26
" " - 4	85.42	83.10	76.15	73.20	67.97	66.30	74.25	71.90
Blood Spots - All Sizes - Ave.	2.31		2.60		3.19		8.15	
Range Group - 1	0.00	1.16	0.00	1.30	1.00	2.10	1.80	4.98
" " - 2	1.17	2.31	1.31	2.60	2.11	3.19	4.99	8.15
" " - 3	2.32	3.21	2.61	4.55	3.20	4.80	8.16	11.93
" " - 4	3.22	4.10	4.56	6.50	4.81	6.40	11.94	15.70

SUMMARY OF IMPORTANT DATA FOR ALL RANDOM SAMPLE EGG LAYING TESTS (Continued)

New Jersey		Central New York		North Carolina		Pennsylvania		Rhode Island	
$1.853		$2.769		$0.979		$1.482		$3.189	
$2.450	2.151	$3.640	3.204	$1.660	1.319	$2.060	1.771	$4.030	3.609
2.150	1.853	3.203	2.769	1.318	0.979	1.770	1.482	3.608	3.189
1.852	1.531	2.768	2.384	0.978	0.759	1.481	0.946	3.188	2.439
1.530	1.210	2.383	2.000	0.758	0.540	0.945	0.410	2.438	1.690
230.92		224.83		222.23		213.32		236.24	
262.30	246.61	262.00	243.41	251.20	236.71	237.80	225.56	265.70	250.97
246.60	230.92	243.40	224.83	236.70	222.23	225.55	213.32	250.96	236.24
230.91	212.81	224.82	204.66	222.22	207.26	213.31	190.66	236.23	219.72
212.80	194.70	204.65	184.50	207.25	192.30	190.65	168.00	219.71	203.20
174.0		176.9		166.4		178.3		166.9	
156.0	165.0	167.0	172.0	160.0	163.2	156.0	167.2	158.0	162.5
165.1	174.0	172.1	176.9	163.3	166.4	167.3	178.3	162.6	166.9
174.1	181.5	177.0	183.0	166.5	169.7	178.4	192.7	167.0	170.0
181.6	189.0	183.1	189.0	169.8	173.0	192.8	207.0	170.1	173.0
3.55		4.65		12.72		5.60		1.60	
0.00	1.78	0.00	2.33	5.30	9.01	0.00	2.80	0.00	0.80
1.79	3.55	2.34	4.65	9.02	12.72	2.81	5.60	0.81	1.60
3.56	6.33	4.66	10.38	12.73	18.06	5.61	9.25	1.61	2.25
6.34	9.10	10.39	16.10	18.07	23.40	9.26	12.90	2.26	2.90
10.73		9.17		18.02		6.63		7.97	
2.00	6.37	0.00	4.59	7.80	12.91	0.00	3.32	0.00	3.99
6.38	10.73	4.60	9.17	12.92	18.02	3.33	6.63	4.00	7.97
10.74	17.37	9.18	17.59	18.03	24.01	6.64	12.87	7.98	16.54
17.38	24.00	17.60	26.00	24.02	30.00	12.88	19.10	16.55	25.10
25.27		25.69		25.08		25.51		25.03	
26.70	25.98	27.70	26.69	26.40	25.74	28.50	27.00	26.20	25.61
25.97	25.27	26.68	25.69	25.73	25.08	26.99	25.51	25.60	25.03
25.26	24.73	25.68	24.89	25.07	24.49	25.50	24.90	25.02	24.21
24.72	24.20	24.88	24.10	24.48	23.90	24.89	24.30	24.20	23.40
61.43		74.15		72.71		69.26		90.86	
78.80	70.11	89.00	81.57	85.30	79.00	90.80	80.03	96.30	93.58
70.10	61.43	81.56	74.15	78.99	72.71	80.02	69.26	93.57	90.86
61.42	51.51	74.14	63.82	72.70	65.60	69.25	61.23	90.85	85.13
51.50	41.60	63.81	53.50	65.59	58.50	61.22	53.20	85.12	79.40
4.308		4.162		4.333		4.568		4.742	
4.120	4.214	3.720	3.941	3.990	4.162	4.080	4.324	4.240	4.491
4.215	4.308	3.942	4.162	4.163	4.333	4.325	4.568	4.492	4.742
4.309	4.519	4.163	4.446	4.334	4.487	4.569	5.034	4.743	5.451
4.520	4.730	4.447	4.730	4.488	4.640	5.035	5.500	5.452	6.160
81.21		80.38		79.16		78.95		74.98	
86.10	83.65	86.30	83.34	82.80	80.98	84.40	81.67	79.10	77.04
83.64	81.21	83.33	80.38	80.97	79.16	81.66	78.95	77.03	74.98
81.20	78.35	80.37	76.79	79.15	76.53	78.94	76.52	74.97	71.84
78.34	75.50	76.78	73.20	76.52	73.90	76.51	74.10	71.83	68.70
3.05		6.85		4.27		3.82		4.29	
0.70	1.88	2.70	4.78	1.20	2.74	0.00	1.91	1.90	3.10
1.89	3.05	4.79	6.85	2.75	4.27	1.92	3.82	3.11	4.29
3.06	5.43	6.86	10.48	4.28	6.74	3.83	5.41	4.30	6.80
5.44	7.80	10.49	14.10	6.75	9.20	5.42	7.00	6.81	9.30

SUMMARY OF IMPORTANT DATA FOR ALL RANDOM SAMPLE EGG LAYING TESTS (Continued)

Trait Measured	Tennessee		Texas		Wisconsin	
Net Income Over Feed and Chick Costs Per Pullet Housed - Ave.	$2.746		$1.991		$1.445	
Range Group - 1	$3.320	3.033	$2.700	2.345	$2.130	1.787
" " - 2	3.032	2.746	2.344	1.991	1.786	1.445
" " - 3	2.745	2.148	1.990	1.585	1.444	0.972
" " - 4	2.147	1.550	1.584	1.180	0.971	0.500
Eggs Per Pullet Housed - Ave.	221.93		216.64		211.12	
Range Group - 1	242.70	232.31	254.90	235.77	254.00	232.56
" " - 2	232.30	221.93	235.76	216.64	232.55	211.12
" " - 3	221.92	198.61	216.63	200.57	211.11	186.66
" " - 4	198.60	175.30	200.56	184.50	186.65	162.20
Days to 50% Production - Ave.	167.5		169.9		170.3	
Range Group - 1	157.0	162.3	160.0	165.0	160.0	165.2
" " - 2	162.4	167.5	165.1	169.9	165.3	170.3
" " - 3	167.6	173.8	170.0	175.5	170.4	176.7
" " - 4	173.9	180.0	175.6	181.0	176.8	183.0
% Mortality Growing Period - Ave.	3.84		4.62		4.03	
Range Group - 1	1.00	2.42	1.10	2.86	0.00	2.02
" " - 2	2.43	3.84	2.87	4.62	2.03	4.03
" " - 3	3.85	5.52	4.63	7.86	4.04	7.87
" " - 4	5.53	7.20	7.87	11.10	7.88	11.70
% Mortality Laying House - Ave.	10.73		9.91		23.94	
Range Group - 1	1.70	6.22	0.00	4.96	10.00	16.97
" " - 2	6.23	10.73	4.97	9.91	16.98	23.94
" " - 3	10.74	14.52	9.92	16.41	23.95	36.97
" " - 4	14.53	18.30	16.42	22.90	36.98	50.00
Egg Size - Average	25.30		24.74		24.44	
Range Group - 1	26.10	25.70	25.90	25.32	25.70	25.07
" " - 2	25.69	25.30	25.31	24.74	25.06	24.44
" " - 3	25.29	24.55	24.73	24.07	24.43	23.77
" " - 4	24.54	23.80	24.06	23.40	23.76	23.10
% Large & Extra Large Eggs - Ave.	82.23		60.70		76.76	
Range Group - 1	87.90	85.06	72.20	66.45	85.60	81.18
" " - 2	85.05	82.23	66.44	60.70	81.17	76.76
" " - 3	82.22	74.46	60.69	50.05	76.75	70.73
" " - 4	74.45	66.70	50.04	39.40	70.72	64.70
Pounds Feed Per 24 Oz. Eggs - Ave.	4.119		4.184		4.578	
Range Group - 1	3.560	3.840	3.700	3.942	4.130	4.354
" " - 2	3.841	4.119	3.943	4.184	4.355	4.578
" " - 3	4.120	4.530	4.185	4.477	4.579	4.939
" " - 4	4.531	4.940	4.478	4.770	4.940	5.300
Albumen - Haugh Units - Ave.	74.01		81.10		80.09	
Range Group - 1	78.80	76.40	86.20	83.65	85.70	82.89
" " - 2	76.39	74.01	83.64	81.10	82.88	80.09
" " - 3	74.00	72.05	81.09	78.70	80.08	77.74
" " - 4	72.04	70.10	78.69	76.30	77.73	75.40
Blood Spots - All Sizes - Ave.	6.11		2.78		4.28	
Range Group - 1	3.10	4.61	0.00	1.39	1.50	2.89
" " - 2	4.62	6.11	1.40	2.78	2.90	4.28
" " - 3	6.12	8.21	2.79	3.89	4.29	7.04
" " - 4	8.22	10.30	3.90	5.00	7.05	9.80

RANGE GROUP RANK OF ENTRIES IN RANDOM SAMPLE EGG PRODUCTION TEST

ENTRY IDENTIFICATION	TEST	BREEDING		STRAIN OR TRADENAME	INCOME OVER FEED AND CHICK COST ($)	EGG PRODUCTION (Hen housed) (No.)	AGE AT 50% PRODUCTION (Days)	GROWING MORTALITY (%)	LAYING MORTALITY (%)	EGG WEIGHT (oz)	LARGE AND EXTRA LARGE EGGS (%)	FEED PER DOZEN 24-OZ. EGGS (lbs)	ALBUMEN QUALITY (H.U.)	BLOOD SPOTS (%)
Allstate Hatchery, Willmar, Minnesota														
Allstate, Minn.	CNY	WL	SX	LX 360	1	1	3	4	1	3	4	1	4	3
Allstate, Minn.	Wisc.	WL	SX	LX 360	3	3	3	2	3	3	3	3	3	3
Allstate Hatchery, Willmar, Minnesota														
Allstate, Minn.	Minn.	WL	SX	LX 363	3	3	4	4	2	4	4	4	3	3
Ames In-Cross, Des Moines, Iowa														
Ames, Iowa (Childers, Cal.)	Cal.		INX	Ames 424	3	4	4	4	4	2	1	3	1	2
Ames In-Cross, Des Moines, Iowa														
Cook's, N. S.	N. B.		INX	Ames 505	2	1	2	4	1	4	4	3	4	1
Andrews, J. J., R. R. #3, Chilliwack, B. C.														
Andrews, B. C.	B. C.	CGxWL	BX	Polka Dot	3	3	2	1	1	2	3	1	3	3
Andrews, B. C.	C. C.	CGxWL	BX	Polka Dot	3	3	2	1	2	2	3	2	2	4
Andrews, J. J., R. R. #3, Chilliwack, B. C.														
Andrews, B. C.	B. C.	WL	SX	Andrews	3	3	4	3	1	3	3	2	3	2
Andrews, B. C.	C. C.	WL	SX	Andrews	2	2	2	3	1	3	3	1	3	3
Animal Research Institute, Ottawa, Ontario														
A. R. I., Ont.	C. C.	WL	PS	Random Bred	4	4	4	3	4	4	4	4	2	3
A. R. I., Ont.	C. C.	WL	PS	Random Bred	4	4	4	3	3	4	4	4	1	3
A. R. I., Ont.	Wisc.	WL	PS	Random Bred	4	4	4	2	4	4	4	4	3	3
Animal Research Institute, Kentville, Nova Scotia														
A. R. I., N. S.	C. C.	WL	PS	Kentville R. B. C.	3	2	2	3	1	3	3	2	2	4
A. R. I., N. S.	C. C.	WL	PS	Kentville R. B. C.	3	3	3	3	3	2	2	3	2	3
Anthony, Geo. M. & Sons, Strausstown, Penna.														
Anthony, Penna.	Mo.	WL	SX	Anthony	3	4	3	2	4	2	2	3	2	1
Anthony, Penna.	N. J.	WL	SX	Anthony	4	3	3	3	2	2	2	4	2	2
Anthony, Penna.	CNY	WL	SX	Anthony	3	3	3	1	3	3	3	2	2	2
Anthony, Penna.	Penna.	WL	SX	Anthony	3	3	2	3	3	3	3	3	3	3
Anthony, Penna.	Penna.	WL	SX	Anthony	2	2	3	1	3	3	3	2	2	3
Anthony, Penna.	R. I.	WL	SX	Anthony	3	4	2	4	4	3	3	2	1	2
Anthony, Penna.	Tenn.	WL	SX	Anthony	3	3	3	2	4	1	2	3	1	3
Anthony, Penna.	Wisc.	WL	SX	Anthony	3	3	3	2	3	2	2	3	2	2

ENTRY IOENTIFICATION	TEST	BREEDING		STRAIN OR TRAOENAME	INCOME OVER FEED AND CHICK COST ($)	EGG PRODUCTION (Hen housed) (No.)	AGE AT 50% PRODUCTION (Days)	GROWING MORTALITY (%)	LAYING MORTALITY (%)	EGG WEIGHT (oz)	LARGE AND EXTRA LARGE EGGS (%)	FEED PER DOZEN 24-OZ. EGGS (lbs)	ALBUMEN QUALITY (H.U.)	BLOOD SPOTS (%)
Arbor Acres Farm, Inc., Glastonbury, Conn.														
Arbor Acres, Conn. (A. A., Ark.)	Ark.	WL	SX	Queen	1	2	3	1	3	1	1	3	2	4
Arbor Acres, Conn. (A. A., Cal.)	Cal.	WL	SX	Queen	2	3	4	3	4	2	2	2	2	3
Arbor Acres, Conn.	Iowa	WL	SX	Queen		4	4	4	3	4	4		3	4
Arbor Acres, Conn. (A. A., Ark.)	Kansas	WL	SX	Queen	4	4	4	2	3	1	2	4	3	4
Arbor Acres, Conn. (A. A., Ind.)	Minn.	WL	SX	Queen	1	1	4	3	3	2	1	1	3	3
Arbor Acres, Conn. (A. A., Ark.)	Mo.	WL	SX	Queen	2	3	4	2	2	2	2	1	3	3
Arbor Acres, Conn.	N. H.	WL	SX	Queen	3	3	3	3	4	4	4	2	1	2
Arbor Acres, Conn. (A. A., Mass.)	N. J.	WL	SX	Queen	1	1	3	3	1	3	2	1	2	3
Arbor Acres, Conn.	CNY	WL	SX	Queen	3	3	3	2	3	2	2	3	3	4
Arbor Acres, Conn. (A. A., N. C.)	N. C.	WL	SX	Queen	3	4	4	1	4	1	1	4	1	3
Arbor Acres, Conn.	Penna.	WL	SX	Queen	3	3	2	3	4	3	3	3	3	4
Arbor Acres, Conn.	Texas	WL	SX	Queen	3	4	4	2	4	2	2	3	2	4
Arbor Acres, Conn. (A. A., Ind.)	Wisc.	WL	SX	Queen	1	2	3	3	3	1	1	1	2	3
Avery, C. T. & Son, Colrain, Massachusetts														
Avery, Mass.	R. I.	RIR	PS	Flock Mating	3	4	4	4	3	4	3	4	3	3
Babcock Poultry Farm, Inc., Ithaca, New York														
Babcock, N. Y. (Nanaimo, B. C.)	B. C.	WL	SX	Babcock B-300	1	1	1	1	1	2	2	1	4	3
Babcock, N. Y. (Hogsett, Cal.)	Cal.	WL	SX	Babcock B-300	2	2	2	3	1	2	2	2	3	4
Hodges, Fla.	Fla.	WL	SX	Babcock B-300	2	2	1	2	2	3	2	3	3	3
Babcock, N. Y.	Iowa	WL	SX	Babcock B-300		4	3	3	4	2	2		3	2
Babcock, N. Y. (Nelson, Kans.)	Kansas	WL	SX	Babcock B-300	1	1	1	1	2	2	2	2	3	1
Babcock, N. Y. (Mettlings, Minn.)	Minn.	WL	SX	Babcock B-300	1	1	1	3	3	2	2	1	3	1
Babcock, N. Y.	Mo.	WL	SX	Babcock B-300	1	2	1	3	1	2	2	2	3	4
Babcock, N. Y. (Babcock, Penna.)	N. J.	WL	SX	Babcock B-300	2	2	2	1	3	2	2	2	3	3
Babcock, N. Y.	CNY	WL	SX	Babcock B-300	2	2	2	2	1	3	2	3	2	3
Babcock, N. Y. (Harrolds, Ga.)	N. C.	WL	SX	Babcock B-300	3	2	1	4	2	2	3	1	3	4
Babcock, Penna.	Penna.	WL	SX	Babcock B-300	1	1	1	4	2	2	2	2	4	4
Babcock, N. Y.	R. I.	WL	SX	Babcock B-300	3	4	3	1	4	2	3	2	3	2
Babcock, N. Y.	Tenn.	WL	SX	Babcock B-300	1	1	3	1	1	1	1	2	3	2
Babcock, N. Y.	Texas	WL	SX	Babcock B-300	2	2	2	1	2	3	3	2	3	3
Babcock, N. Y. (Peck, Wisc.)	Wisc.	WL	SX	Babcock B-300	1	1	1	1	1	3	2	1	2	3
Babcock Poultry Farm, Inc., Ithaca, New York														
Babcock, N. Y. (Hogsett, Cal.)	Cal.	CGxWL	BX	Babcock B-370	2	2	1	1	1	2	3	3	3	2
Gulf Coast, Fla.	Fla.	CGxWL	BX	Babcock B-370	3	3	1	1	3	4	4	3	4	2
Babcock, N. Y.	Mo.	CGxWL	BX	Babcock B-370	3	2	1	1	2	3	3	3	4	2
Babcock, N. Y.	Penna.	CGxWL	BX	Babcock B-370	2	1	1	4	2	3	3	2	4	1
Babcock, N. Y.	Tenn.	CGxWL	BX	Babcock B-370	2	1	1	4	2	1	2	3	3	1

RANGE GROUP RANK OF ENTRIES IN RANDOM SAMPLE EGG PRODUCTION TEST *(Continued)*

ENTRY IDENTIFICATION	TEST	BREEDING	STRAIN OR TRADENAME	INCOME OVER FEED AND CHICK COST ($)	EGG PRODUCTION (Hen housed) (No.)	AGE AT 50% PRODUCTION (Days)	GROWING MORTALITY (%)	LAYING MORTALITY (%)	EGG WEIGHT (oz)	LARGE AND EXTRA LARGE EGGS (%)	FEED PER DOZEN 24-OZ. EGGS (lbs)	ALBUMEN QUALITY (H.U.)	BLOOD SPOTS (%)
Balfour Guthrie & Co. Ltd., Fresno, California													
Guthrie, Cal.	Cal.	CGxWL BX	Rialto Gray	3	4	1	2	3	3	3	3	4	2
Ball Poultry Farm, Owego, New York													
Ball, N. Y.	CNY	WL SX	Ball 551 A	3	3	2	1	3	3	2	2	3	3
Ball, N. Y.	Penna.	WL SX	Ball 551 A	4	4	2	4	4	2	3	4	3	3
Baum, Adam, Locke, New York													
Baum, N. Y.	CNY	WLxCG BX	B x W 267	3	3	3	3	2	2	3	3	3	3
Beamsdale Farm, Lawndale, North Carolina													
Beamsdale, N. C.	Mo.	WL SX	Beamsdale 66	3	2	3	2	2	3	3	3	2	1
Beamsdale, N. C.	N. C.	WL SX	Beamsdale 66	4	4	1	2	4	4	4	3	3	1
Booth Farms & Hatchery, Clinton, Missouri													
Booth, Mo.	Mo.	INX	Booth Line 351	2	2	3	3	1	3	3	1	2	4
Booth Farms & Hatchery, Clinton, Missouri													
Booth, Mo.	Mo.	INX	Booth Line 352	2	3	3	1	3	3	3	2	3	2
Brender's Leghorns, Ferndale, New York													
Brender, N. Y.	Ark.	WL SX	Money Maker #2	3	3	4	4	2	3	3	3	3	2
Brender, N. Y.	Minn.	WL SX	Money Maker #2	3	3	3	2	3	4	4	3	2	1
Brender, N. Y.	Mo.	WL SX	Money Maker #2	2	2	4	1	3	3	3	1	2	3
Brender, N. Y.	N. J.	WL SX	Money Maker #2	3	3	3	2	2	3	3	3	3	3
Brender, N. Y.	CNY	WL SX	Money Maker #2	3	3	3	2	3	2	3	2	3	3
Brender, N. Y.	Penna.	WL SX	Money Maker #2	2	3	3	3	3	2	2	1	3	1
Brender, N. Y.	Tenn.	WL SX	Money Maker #2	3	4	4	2	4	2	3	3	3	1
Brender, N. Y.	Wisc.	WL SX	Money Maker #2	2	3	2	2	1	2	2	2	2	3
Buchanan's Poultry Ranch, Haney, B. C.													
Buchanan, B. C.	Alta.	WLx(WLxBA)	Kanaka White	3	4	3	3	4	2	3	4	4	1
Buchanan, B. C.	B. C.	WLx(WLxBA)	Kanaka White	2	3	4	3	4	2	2	3	3	1
Buchanan, B. C.	C. C.	WLx(WLxBA)	Kanaka White	3	3	2	3	3	1	1	3	3	1
Buchanan's Poultry Ranch, Haney, B. C.													
Buchanan, B. C.	B. C.	WLx(WLxBA)	Monarch	3	3	3	3	1	3	3	3	3	1
Buchanan, B. C.	C. C.	WLx(WLxBA)	Monarch	3	3	3	1	3	3	3	3	3	1
Burpee, A. K., Woodstock, N. B.													
Burpee, N. B.	N. B.	WLxLS BX	Burpee's #31	3	2	3	2	4	2	3	3	1	2

RANGE GROUP RANK OF ENTRIES IN RANDOM SAMPLE EGG PRODUCTION TEST *(Continued)*

ENTRY IDENTIFICATION	TEST	BREEDING	STRAIN OR TRADENAME	INCOME OVER FEED AND CHICK COST ($)	EGG PRODUCTION (Hen housed) (No.)	AGE AT 50% PRODUCTION (Days)	GROWING MORTALITY (%)	LAYING MORTALITY (%)	EGG WEIGHT (oz)	LARGE AND EXTRA LARGE EGGS (%)	FEED PER DOZEN 24-OZ. EGGS (lbs)	ALBUMEN QUALITY (H.U.)	BLOOD SPOTS (%)
Burpee, A. K., Woodstock, N. B.													
Burpee, N. B.	N. B.	WLx(RIRxLS)	Burpee's #321	1	1	3	2	2	2	2	2	3	3
Cameron Leghorn Res. Farm, Beaver Springs, Penna.													
Cameron, Penna.	Mo.	WL SX	Cameron #924	1	2	3	1	2	2	2	2	2	3
Cameron, Penna.	CNY	WL SX	Cameron #924	2	2	2	2	1	2	2	2	2	3
Cameron, Penna.	N. C.	WL SX	Cameron #924	3	4	4	3	3	2	2	4	1	2
Cameron, Penna.	Penna.	WL SX	Cameron #924	3	2	2	3	2	3	3	3	1	4
Cameron, Penna.	Tenn.	WL SX	Cameron #924	1	1	4	2	2	2	2	3	2	2
Carey Farms, Marion, Ohio													
Carey, Ohio	Mo.	WL SX	E. J.'s	3	4	4	1	2	2	2	3	3	2
Carey, Ohio	CNY	WL SX	E. J.'s	4	3	3	2	2	2	2	4	2	4
Carey Farms, Marion, Ohio													
Carey, Ohio	Penna.	WL SX	New E. J.'s	3	2	3	3	3	3	3	2	4	2
Cashman Leghorn Farm, Webster, Kentucky													
Cashman, Ky.	Minn.	WL IN	Astronauts	2	2	1	2	2	4	4	3	3	4
Cashman, Ky.	Mo.	WL IN	Astronauts	2	1	2	1	1	3	3	3	3	1
Cashman Leghorn Farm, Webster, Kentucky													
Cashman, Ky. (Cowan, Ga.)	Ark.	WL IN	Hi-Cash	3	3	2	1	3	3	3	3	3	3
Cashman, Ky. (Tweddle, Ont.).....	B. C.	WL IN	Hi-Cash	1	1	3	4	1	3	3	1	3	3
Cashman, Ky. (Tweddle, Ont.).....	C. C.	WL IN	Hi-Cash	2	1	3	3	3	3	3	1	3	2
Cashman, Ky.	Mo.	WL IN	Hi-Cash	1	1	1	1	2	3	3	1	3	4
Cashman, Ky.	CNY	WL IN	Hi-Cash	4	3	1	3	2	3	3	3	2	3
Cashman, Ky.	N. C.	WL IN	Hi-Cash	2	1	1	3	3	3	3	1	3	4
Weaver's, Penna.	Penna.	WL IN	Hi-Cash	2	2	3	2	2	4	4	2	2	1
Cashman, Ky.	Texas	WL IN	Hi-Cash	3	3	4	3	3	3	3	3	4	3
Childers Hatchery, Santa Ana, California													
Childers, Cal.	Cal.	INX	EGGSecutive II	3	4	3	3	4	3	3	3	2	2
Clark, H. R., Burtt's Corner, New Brunswick													
Clark, N. B.	C. C.	WL SX	Clark's #57	1	1	3	3	1	3	1	1	2	3
Clark, N. B.	N. B.	WL SX	Clark's #57	1	1	4	2	2	3	3	1	1	4
Clark's Poultry Farm, Brandon, Manitoba													
Clark's, Manitoba	Alta.	RIRx(LSxRIR)	Paymaster 101	4	4	1	4	1	2	4	1	4	4
Clark's, Manitoba	C. C.	RIRx(LSxRIR)	Paymaster 101	3	3	2	3	3	2	2	4	3	3
Clark's, Manitoba	N. B.	RIRx(LSxRIR)	Paymaster 101	3	3	3	1	2	3	2	3	4	1

RANGE GROUP RANK OF ENTRIES IN RANDOM SAMPLE EGG PRODUCTION TEST *(Continued)*

ENTRY IDENTIFICATION	TEST	BREEDING	STRAIN OR TRADENAME	INCOME OVER FEED AND CHICK COST ($)	EGG PRODUCTION (Hen housed) (No.)	AGE AT 50% PRODUCTION (Days)	GROWING MORTALITY (%)	LAYING MORTALITY (%)	EGG WEIGHT (oz)	LARGE AND EXTRA LARGE EGGS (%)	FEED PER DOZEN 24-OZ. EGGS (lbs)	ALBUMEN QUALITY (H.U.)	BLOOD SPOTS (%)
Colonial Poultry Farms, Pleasant Hill, Missouri													
Colonial, Mo.	Ark.	WL IN	True-Line 365B	3	3	1	2	2	3	4	3	3	4
Colonial, Mo. (Fairway Electic, Sask.)	C. C.	WL IN	True-Line 365B	3	3	2	2	3	3	3	2	1	4
Colonial, Mo.	Mo.	WL IN	True-Line 365B	3	3	2	2	3	3	3	3	3	2
Colonial, Mo. (Krehrer, N. Y.)	CNY	WL IN	True-Line 365B	3	2	1	4	1	4	3	2	3	3
Colonial, Mo.	Penna.	WL IN	True-Line 365B	3	1	1	3	2	4	4	2	4	3
Colonial Poultry Farms, Pleasant Hill, Missouri													
Colonial, Mo.	Mo.	INX	True-Line #142	2	2	1	3	3	2	3	1	3	2
Davis, Joe K., Hatchery, Earl, North Carolina													
Davis, N. C.	Cal.	RIRxBPR BX	Davis Combiner	3	3	2	1	1	1	1	4	2	3
Davis, N. C.	N. H.	RIRxBPR BX	Davis Combiner	1	2	2	3	1	1	2	3	2	4
Davis, N. C.	N. C.	RIRxBPR BX	Davis Combiner	2	2	2	3	2	1	1	4	2	2
Davis, N. C.	Penna.	RIRxBPR BX	Davis Combiner	2	2	3	1	2	1	1	3	2	2
Davis, N. C.	R. I.	RIRxBPR BX	Davis Combiner	3	4	4	1	1	1	1	3	3	1
DeKalb Agricultural Assoc., Sycamore, Illinois													
DeKalb, Ill. (Roselee, Alta.)	Alta.	INX	DeKalb 131	1	1	1	1	3	2	2	1	4	3
DeKalb, Ill. (Sanders, Cal.)	Cal.	INX	DeKalb 131	2	3	2	2	2	3	3	1	2	2
Brandenburg, Fla.	Fla.	INX	DeKalb 131	3	3	3	1	3	2	2	2	3	3
Joe's, Fla.	Fla.	INX	DeKalb 131	3	2	3	4	2	1	2	2	3	2
DeKalb, Ill. (Heim's, Mo.)	Mo.	INX	DeKalb 131	2	2	3	1	1	2	2	1	3	1
DeKalb, Ill.	Texas	INX	DeKalb 131	2	2	1	3	3	3	3	1	2	4
DeKalb, Ill. (Hegerfeld, Wisc.)	Wisc.	INX	DeKalb 131	3	3	3	1	2	2	2	2	3	3
DeKalb Agricultural Assoc., Sycamore, Illinois													
Arizona Star Farm, Ariz.	Ariz.	INX	DeKalb 151	3	4	3	2	4	2	1	3	2	3
DeKalb, Ill. (Holloway, Cal.)	Cal.	INX	DeKalb 151	2	2	3	3	1	2	2	1	2	3
Musselwhite, Fla.	Fla.	INX	DeKalb 151	3	3	4	2	3	2	2	3	2	4
DeKalb, Ill. (Cent. Kans., Kans.)	Kansas	INX	DeKalb 151	4	4	3	4	4	4	3	2	2	4
DeKalb, Ill. (Stone, Minn.)	Minn.	INX	DeKalb 151	4	4	1	3	2	1	2	2	1	1
DeKalb, Ill. (Olson, Mo.)	Mo.	INX	DeKalb 151	3	3	2	2	2	2	2	2	2	3
DeKalb, Ill. (Schubkegel, N. J.)	N. J.	INX	DeKalb 151	2	2	2	2	2	2	2	2	3	3
DeKalb, Ill. (Glor, N. Y.)	CNY	INX	DeKalb 151	3	3	3	1	2	2	2	3	2	4
DeKalb, Ill. (Lancaster, N. C.)	N. C.	INX	DeKalb 151	3	2	3	1	2	2	2	2	2	4
DeKalb, Ill.	Penna.	INX	DeKalb 151	1	1	2	1	1	3	2	1	2	2
DeKalb, Ill. (Card, Tenn.)	Tenn.	INX	DeKalb 151	2	2	3	1	3	1	1	2	3	2
Grigsby, Texas	Texas	INX	DeKalb 151	3	3	3	3	2	2	2	3	2	3
Pierson-Craddock, Texas	Texas	INX	DeKalb 151	4	4	3	1	4	2	2	3	2	4
DeKalb, Ill. (Stark, Wisc.)	Wisc.	INX	DeKalb 151	1	1	2	1	1	1	2	1	3	3

RANGE GROUP RANK OF ENTRIES IN RANDOM SAMPLE EGG PRODUCTION TEST *(Continued)*

ENTRY IDENTIFICATION	TEST	BREEDING		STRAIN OR TRADENAME	INCOME OVER FEED AND CHICK COST ($)	EGG PRODUCTION (Hen housed) (No.)	AGE AT 50% PRODUCTION (Days)	GROWING MORTALITY (%)	LAYING MORTALITY (%)	EGG WEIGHT (oz)	LARGE AND EXTRA LARGE EGGS (%)	FEED PER DOZEN 24-OZ. EGGS (lbs)	ALBUMEN QUALITY (H.U.)	BLOOD SPOTS (%)
Del Rio Farm, Mesa, Arizona														
Del Rio, Ariz.	Ariz.	RIR	PS	Del Rio	4	4	4	4	4	4	4	4	4	4
Demler Farms, Anaheim, California														
Yeiser-Demler, Ky.	Ark.	WL	SX	Demler Regal	2	3	1	1	2	3	3	2	2	1
Demler, Cal.	B. C.	WL	SX	Demler Regal	3	4	2	2	4	3	3	3	3	2
Demler, Cal.	Cal.	WL	SX	Demler Regal	3	4	3	3	3	3	3	3	2	2
Hatchery Enterprises, Fla.	Fla.	WL	SX	Demler Regal	3	3	2	2	3	3	3	2	3	2
Demler, Cal. (Yeiser-Delmer, Ky.).....	Minn.	WL	SX	Demler Regal	4	4	2	1	3	3	3	4	2	4
Hall, Conn.	N. H.	WL	SX	Demler Regal	4	4	2	3	4	4	4	3	2	1
Demler, Cal. (Franks, N. J.)	N. J.	WL	SX	Demler Regal	3	3	2	4	2	3	3	2	3	1
Demler, Cal. (Kingsley, Pa.).....	CNY	WL	SX	Demler Regal	4	4	2	2	4	3	3	2	2	3
Demler, Cal. (Raleigh, N. C.).....	N. C.	WL	SX	Demler Regal	4	4	2	3	3	4	4	3	3	3
Wallis, Penna.	Penna.	WL	SX	Demler Regal	3	2	2	1	2	3	3	2	4	3
Yeiser-Demler, Ky.	Tenn.	WL	SX	Demler Regal	2	3	1	3	2	3	3	3	3	2
Demler, Cal.	Texas	WL	SX	Demler Regal	3	3	2	3	1	3	3	4	3	3
Yeiser-Demler, Ky.	Texas	WL	SX	Demler Regal	3	3	2	2	3	3	3	3	2	4
Demler, Cal. (May Bros., Wisc.).....	Wisc.	WL	SX	Demler Regal	4	3	3	4	3	4	3	4	4	2
Demler Farms, Anaheim, California														
Demler, Cal.	Cal.	Syn x WL	BX	Demler Royal	3	3	1	3	2	2	2	3	2	3
Tri-State, Fla.	Fla.	Syn x WL	BX	Demler Royal	3	3	2	3	3	3	3	3	3	1
Demler, Cal.	Mo.	Syn x WL	BX	Demler Royal	2	3	2	3	3	2	2	1	3	1
Fairview, Penna.	Penna.	Syn x WL	BX	Demler Royal	1	1	2	1	1	4	3	1	4	3
deZeeuw Leghorn Breeder, So. Edmonton, Alberta														
deZeeuw, Alta.	Alta.	WL	SX	deZeeuw 752	2	3	3	1	2	2	2	2	2	2
deZeeuw, Alta.	C. C.	WL	SX	deZeeuw 752	2	2	3	2	1	3	3	2	3	1
deZeeuw Leghorn Breeder, So. Edmonton, Alberta														
deZeeuw, Alta.	Alta.	WL	SX	deZeeuw 752A	3	4	4	3	4	4	4	3	3	3
deZeeuw, Alta.	B. C.	WL	SX	deZeeuw 752A	1	2	4	2	1	3	3	1	3	2
deZeeuw, Alta.	C. C.	WL	SX	deZeeuw 752A	2	2	2	2	1	2	2	2	1	2
deZeeuw, Alta.	N. B.	WL	SX	deZeeuw 752A	3	3	3	2	4	4	4	1	3	3
Eby's Poultry Farm, Carrollton, Texas														
Eby's, Texas	Mo.	WL	IN	#681 Hybrids	2	2	3	1	1	3	3	2	4	3
Eby's, Texas	N. C.	WL	IN	#681 Hybrids	3	3	3	2	2	3	3	3	4	2
Eby's, Texas	Texas	WL	IN	#681 Hybrids	3	3	3	1	2	2	2	3	3	3

RANGE GROUP RANK OF ENTRIES IN RANDOM SAMPLE EGG PRODUCTION TEST *(Continued)*

ENTRY IDENTIFICATION	TEST	BREEDING	STRAIN OR TRADENAME	INCOME OVER FEED AND CHICK COST ($)	EGG PRODUCTION (Hen housed) (No.)	AGE AT 50% PRODUCTION (Days)	GROWING MORTALITY (%)	LAYING MORTALITY (%)	EGG WEIGHT (oz)	LARGE AND EXTRA LARGE EGGS (%)	FEED PER DOZEN 24-OZ. EGGS (lbs)	ALBUMEN QUALITY (H.U.)	BLOOD SPOTS (%)
Echo Glen Egg Farm, Weedville, Pennsylvania													
Echo Glen, Penna.	Penna.	WL	LX Echo Glen	3	3	4	4	4	3	3	3	1	2
Elander, P., Balcarres, Saskatchewan													
Elander, Sask.	C. C.	WL	SX Starline	2	2	2	2	2	2	2	2	2	2
Erath Egg Farm, Stephenville, Texas													
Erath, Texas	Texas		INX Erath Mestiza	1	1	1	1	1	3	3	1	4	4
Evans, W. D. Hatchery, Northampton, England													
Evans, England	Cal.	WL	SX Maxilay	2	2	3	2	2	4	3	2	3	3
Evans, England	Mo.	WL	SX Maxilay	3	3	4	1	3	3	3	2	2	3
Evans, England	R. I.	WL	SX Maxilay	2	2	4	2	2	4	4	1	2	4
Evans, England	Tenn.	WL	SX Maxilay	3	3	4	4	3	3	3	2	2	3
Evans, England	Texas	WL	SX Maxilay	2	2	4	3	2	3	3	1	2	3
Fisher Poultry Farm, Ayton, Ontario													
Fisher, Ont.	Alta.	WL	SX Fisher 103	1	1	2	3	1	1	1	3	3	3
Fisher, Ont.	B. C.	WL	SX Fisher 103	2	3	2	2	2	2	2	2	2	2
Fisher, Ont.	C. C.	WL	SX Fisher 103	2	2	2	1	2	1	1	2	1	3
Fisher, Ont.	N. B.	WL	SX Fisher 103	2	2	2	4	2	3	3	1	3	4
Fisher Poultry Farm, Ayton, Ontario													
Fisher, Ont.	C. C.	WL x WW	BX Fisher 303	3	3	1	3	3	3	3	3	4	1
Forsgate Farms, Jamesburg, New Jersey													
Forsgate, N. J.	N. J.	WL	SX F 160	2	3	4	3	3	3	2	2	2	2
Forsgate, N. J.	Penna.	WL	SX F 160	2	2	3	1	2	2	2	2	2	3
Garber Poultry Breeding Farm, Modesto, California													
Garber, Cal.	Cal.	WL	SX G 200	1	2	3	2	2	3	1	2	1	1
Orange Blossom, Fla.	Fla.	WL	SX G 200	3	3	3	1	3	1	2	2	1	2
Garber, Cal.	N. J.	WL	SX G 200	2	2	2	1	1	3	3	2	2	1
Garber, Cal.	CNY	WL	SX G 200	1	2	2	1	1	2	2	2	1	1
Garber, Cal.	Penna.	WL	SX G 200	2	3	3	1	2	2	2	2	1	1
Garber, Cal.	Texas	WL	SX G 200	2	2	3	2	3	2	2	3	1	4
Garber, Cal.	Wisc.	WL	SX G 200	3	3	3	3	3	3	2	3	1	1
Garber Poultry Breeding Farm, Modesto, California													
Garber, Cal.	Cal.	CGxWL	BX G x 291	1	2	1	3	2	1	2	1	2	1
Garber, Cal.	Mo.	CGxWL	BX G x 291	2	2	1	2	2	2	2	2	3	2
Garber, Cal.	Penna.	CGxWL	BX G x 291	1	2	1	3	1	2	2	2	4	1
Garber, Cal.	Tenn.	CGxWL	BX G x 291	1	1	2	2	2	1	1	3	3	2
Garrison, Earl W., Bridgeton, New Jersey													
Garrison, N. J.	Penna.	RIRxWR	BX Golden Sex Link	3	3	3	4	2	1	1	3	2	2

RANGE GROUP RANK OF ENTRIES IN RANOOM SAMPLE EGG PRODUCTION TEST *(Continued)*

ENTRY IOENTIFICATION	TEST	BREEDING	STRAIN OR TRADENAME	INCOME OVER FEED AND CHICK COST ($)	EGG PRODUCTION (Hen housed) (No.)	AGE AT 50% PRODUCTION (Days)	GROWING MORTALITY (%)	LAYING MORTALITY (%)	EGG WEIGHT (oz)	LARGE AND EXTRA LARGE EGGS (%)	FEED PER DOZEN 24-OZ. EGGS (lbs)	ALBUMEN QUALITY (H.U.)	BLOOD SPOTS (%)
Gasson's Poultry Farm, Versailles, Ohio													
Gasson, Ohio	Mo.	WL	SX	Gasson's G 33	2	2	3	3	2	3	3	2	3	2
Gasson, Ohio	Wisc.	WL	SX	Gasson's G 33	2	2	2	2	1	3	3	2	2	2
Ghostley's Poultry Farm, Anoka, Minnesota														
Ghostley, Minn.	Ark.	WL	SX	Ghostley Pearl	3	2	4	4	2	2	2	3	1	2
Ghostley, Minn. (Wheelock, Pa.).....	CNY	WL	SX	Ghostley Pearl	4	4	3	1	4	2	2	3	1	1
Ghostley, Minn. (All Star, N. C.).....	N. C.	WL	SX	Ghostley Pearl	4	4	4	3	3	2	2	4	1	1
Wheelock, Penna.	Penna.	WL	SX	Ghostley Pearl	3	2	3	4	2	3	2	3	2	3
Ghostley, Minn.	R. I.	WL	SX	Ghostley Pearl	3	3	1	4	3	3	3	3	1	2
Ghostley, Minn.	Texas	WL	SX	Ghostley Pearl	4	3	3	3	4	3	3	3	1	2
Ghostley, Minn. (Reid's Valley, Wisc.)....	Wisc.	WL	SX	Ghostley Pearl	4	4	4	4	4	3	3	4	1	2
Ghostley's Poultry Farm, Anoka, Minnesota														
Ghostley, Minn.	Ark.	WL	SX	Ghostley Pearl 63	4	4	2	4	4	1	3	4	1	2
Ghostley, Minn. (Balfour Guthrie, Cal.)....	Cal.	WL	SX	Ghostley Pearl 63	3	2	2	1	1	3	3	3	1	2
Voscinary, Fla.	Fla.	WL	SX	Ghostley Pearl 63	3	4	3	3	3	1	1	3	1	3
Ghostley, Minn.	Iowa	WL	SX	Ghostley Pearl 63		3	1	3	2	2	2		1	1
Ghostley, Minn.	Kansas	WL	SX	Ghostley Pearl 63	1	1	2	1	4	1	1	2	1	1
Ghostley, Minn.	Minn.	WL	SX	Ghostley Pearl 63	2	1	2	3	3	2	2	2	1	4
Ghostley, Minn.	Mo.	WL	SX	Ghostley Pearl 63	3	2	2	3	3	2	2	3	1	1
Ghostley, Minn.	N. H.	WL	SX	Ghostley Pearl 63	2	2	1	2	4	3	3	1	1	1
Ghostley, Minn.	N. J.	WL	SX	Ghostley Pearl 63	3	2	1	2	1	3	3	3	1	1
Ghostley, Minn.	Tenn.	WL	SX	Ghostley Pearl 63	2	2	3	1	3	2	2	3	1	3
Ghostley, Minn.	Wisc.	WL	SX	Ghostley Pearl 63	1	1	2	1	1	2	2	1	1	1
Good's Poultry Farm, Indiana, Pennsylvania														
Good's, Penna.	Penna.	WL	SX	Good's	4	4	3	2	4	3	3	4	3	3
Hansen's Leghorn City, Puyallup, Washington														
Hansen, Wash. (Oliver's, B. C.).....	B. C.	WL	SX	Criss Cross H 25	3	3	4	2	3	3	3	3	1	3
Hansen, Wash.	Mo.	WL	SX	Criss Cross H 25	2	2	2	3	1	3	3	2	3	1
Hansen, Wash.	CNY	WL	SX	Criss Cross H 25	4	4	3	2	3	3	4	4	2	2
Hansen, Wash.	Penna.	WL	SX	Criss Cross H 25	3	3	2	2	3	4	2	3	3	3
Hansen, Wash.	Tenn.	WL	SX	Criss Cross H 25	1	1	3	4	2	2	3	2	2	4
Hansen, Wash. (Young's, Wisc.).....	Wisc.	WL	SX	Criss Cross H 25	3	3	3	1	1	3	4	3	3	3
Hanson, J. A. & Son, Corvallis, Oregon														
Hanson, Ore.	Mo.	WL	SX	Super Nick	4	4	2	4	4	3	3	4	3	4
Hanson, Ore.	CNY	WL	SX	Super Nick	4	3	1	4	3	4	4	2	3	3

RANGE GROUP RANK OF ENTRIES IN RANDOM SAMPLE EGG PRODUCTION TEST *(Continued)*

ENTRY IDENTIFICATION	TEST	BREEDING	STRAIN OR TRADENAME	INCOME OVER FEED AND CHICK COST ($)	EGG PRODUCTION (Hen housed) (No.)	AGE AT 50% PRODUCTION (Days)	GROWING MORTALITY (%)	LAYING MORTALITY (%)	EGG WEIGHT (oz)	LARGE AND EXTRA LARGE EGGS (%)	FEED PER DOZEN 24-OZ. EGGS (lbs)	ALBUMEN QUALITY (H.U.)	BLOOD SPOTS (%)
Harco Orchards & Poultry Farm, So. Easton, Mass.													
Harco, Mass.	N. H.	RIR PS	Group I	3	4	3	4	3	3	3	4	2	3
Harco, Mass.	N. C.	RIR PS	Group I	2	1	4	3	1	1	1	2	2	1
Harco Orchards & Poultry Farm, So. Easton, Mass.													
Harco, Mass.	N. B.	RIR x BPR	Sex Link	2	2	2	4	1	1	1	3	3	2
Harco, Mass.	N. H.	RIR x BPR	Sex Link	1	1	3	2	1	1	1	2	2	3
Harco, Mass.	CNY	RIR x BPR	Sex Link	2	2	3	1	3	1	1	3	3	2
Harco, Mass.	Penna.	RIR x BPR	Sex Link	1	1	3	3	2	1	1	2	2	2
Harco, Mass.	R. I.	RIR x BPR	Sex Link	2	2	2	1	1	1	1	3	3	2
Hardy, C. Nelson & Son, Essex, Massachusetts													
Hardy, Mass.	N. H.	RIR x BPR	Sex Link	4	4	2	1	4	2	2	4	4	4
Heisdorf & Nelson Farms, Kirkland, Washington													
H & N, Wash. (Pringle, Edmonton).....	Alta.	WL SX	Nick Chick	1	1	1	3	2	3	2	2	1	1
H & N, Wash, (Erving, Ark.)	Ark.	WL SX	Nick Chick	2	2	2	3	1	2	2	3	2	3
H & N, Wash, (Pringle, B. C.).....	B. C.	WL SX	Nick Chick	3	3	2	1	3	2	2	3	1	3
H & N, Wash, (H & N, Cal.)	Cal.	WL SX	Nick Chick	1	1	2	2	1	2	1	1	1	2
Frizzell, Fla.	Fla.	WL SX	Nick Chick	3	2	1	2	2	2	2	3	2	1
Pine Acres, Fla.	Fla.	WL SX	Nick Chick	2	2	2	3	1	2	2	3	2	2
Oak Crest, Fla.	Fla.	WL SX	Nick Chick	2	2	1	2	1	3	3	3	2	3
H & N, Wash.	Iowa	WL SX	Nick Chick		2	1	2	2	4	4		3	3
H & N, Wash. (Reimer's, Kans.).....	Kansas	WL SX	Nick Chick	1	1	1	1	1	4	2	2	2	4
H & N, Wash. (Sandberg, Minn.)	Minn.	WL SX	Nick Chick	2	2	1	1	2	3	2	2	2	3
H & N, Wash. (Mo-Ark, Mo.).....	Mo.	WL SX	Nick Chick	3	3	2	1	4	3	3	2	2	4
H & N, Wash. (Taub, N. J.)	N. J.	WL SX	Nick Chick	3	3	2	1	3	2	3	3	2	1
H & N, Wash. (Weidner, N. Y.).....	CNY	WL SX	Nick Chick	3	3	2	3	2	3	3	3	3	2
H & N, Wash. (Castleberry, N. C.).....	N. C.	WL SX	Nick Chick	4	4	3	3	3	3	3	3	2	3
Florin, Penna.	Penna.	WL SX	Nick Chick	3	3	2	4	1	3	2	3	2	3
Godshall, Penna.	Penna.	WL SX	Nick Chick	3	3	2	1	3	4	3	3	2	2
H & N, Wash. (Erving, Tenn.).....	Tenn.	WL SX	Nick Chick	2	2	2	3	2	1	2	2	2	4
Atwood, Texas	Texas	WL SX	Nick Chick	2	2	1	3	2	3	3	3	1	3
Vance, Texas	Texas	WL SX	Nick Chick	2	2	2	2	1	3	3	2	1	2
Williams, Texas	Texas	WL SX	Nick Chick	3	3	3	2	2	3	2	3	2	2
H & N, Wash. (Slette, Wisc.)	Wisc.	WL SX	Nick Chick	2	2	2	2	1	3	3	2	2	3
Heisdorf & Nelson Farms, Kirkland, Washington													
H & N, Wash. (Motter, Mo.)	Mo.	WL SX	Mark II	1	1	2	3	3	2	3	1	1	2
Amstutz, Penna.	Penna.	WL SX	Mark II	4	3	2	3	2	3	3	3	2	1
H & N, Wash. (Klongland, Wisc.).....	Wisc.	WL SX	Mark II	2	2	2	3	2	2	3	1	2	1

RANGE GROUP RANK OF ENTRIES IN RANDOM SAMPLE EGG PRODUCTION TEST *(Continued)*

ENTRY IDENTIFICATION	TEST	BREEDING	STRAIN OR TRADENAME	INCOME OVER FEED AND CHICK COST ($)	EGG PRODUCTION (Hen housed) (No.)	AGE AT 50% PRODUCTION (Days)	GROWING MORTALITY (%)	LAYING MORTALITY (%)	EGG WEIGHT (oz)	LARGE AND EXTRA LARGE EGGS (%)	FEED PER DOZEN 24-OZ. EGGS (lbs)	ALBUMEN QUALITY (H.U.)	BLOOD SPOTS (%)
Heisdorf & Nelson Farms, Kirkland, Washington													
H & N, Wash. (H & N, Cal.)	Cal.	Synx WL BX	Breed Cross	1	2	2	1	1	2	2	2	4	3
Heisey Leghorn Farms, Mt. Joy, Pennsylvania													
Heisey, Penna.	Penna.	WL SX	H-K-Cross	2	2	2	2	2	3	3	2	3	3
Honegger Breeder Hatchery, Forrest, Illinois													
Honegger, Ill.	Ark.	WL SX	Honegger Layer	1	1	1	1	2	1	1	1	3	1
Honegger, Ill. (Fraser, B. C.).....	B. C.	WL SX	Honegger Layer	3	2	2	2	2	3	3	3	1	2
Honegger, Ill. (Mortensen, Cal.)	Cal.	WL SX	Honegger Layer	2	2	3	4	1	3	2	2	2	4
Florida Hen Ranch, Fla.	Fla.	WL SX	Honegger Layer	1	1	3	1	1	4	3	2	3	3
Browder, Fla.	Fla.	WL SX	Honegger Layer	2	2	3	1	2	3	3	2	2	2
Pine Air, Fla.	Fla.	WL SX	Honegger Layer	2	3	2	1	2	3	3	3	3	2
Honegger, Ill.	Mo.	WL SX	Honegger Layer	2	2	2	1	2	2	1	2	2	1
Honegger, Ill. (Kasbohn, N. Y.).....	CNY	WL SX	Honegger Layer	2	2	3	2	2	3	2	1	3	2
Honegger, Ill.	R. I.	WL SX	Honegger Layer	1	1	2	4	1	3	3	1	2	2
Honegger, Ill. (Crumley, Tenn.).....	Tenn.	WL SX	Honegger Layer	2	2	2	2	2	2	1	2	3	1
Honegger, Ill. (Sunnyside, Wisc.).....	Wisc.	WL SX	Honegger Layer	3	2	2	1	2	3	2	3	2	3
Honegger Breeder Hatchery, Forrest, Illinois													
Honegger, Ill.	Mo.	WL SX	Honegger Layer 62	3	3	3	3	4	2	2	3	2	2
Honegger, Ill.	N. C.	WL SX	Honegger Layer 62	3	2	2	2	2	3	3	3	1	2
Honegger Breeder Hatchery, Forrest, Illinois													
Honegger, Ill.	N. H.	Synx WL BX	Honegger H-80	2	1	1	1	3	4	4	1	3	1
Honegger, Ill.	Tenn.	Synx WL BX	Honegger H-80	2	2	2	1	2	2	2	3	4	2
Honegger, Ill. (Sunnyside, Wisc.).....	Wisc.	Synx WL BX	Honegger H-80	3	2	1	3	3	3	3	2	4	2
Hubbard Farms, Walpole, New Hampshire													
Hubbard, N. H.	N. H.	Synx NH BX	Comet	1	1	2	2	1	4	4	3	3	3
Hubbard, N. H.	CNY	Synx NH BX	Comet	2	3	3	1	3	3	3	3	3	1
Hubbard, N. H. (Hubbard, N. C.).....	N. C.	Synx NH BX	Comet	2	2	2	2	3	2	2	2	3	1
Hubbard, N. H.	Penna.	Synx NH BX	Comet	1	1	2	3	2	3	2	2	2	2
Hubbard, N. H.	R. I.	Synx NH BX	Comet	1	1	1	1	1	4	3	1	3	1
Hy-Line Poultry Farm, Des Moines, Iowa													
Rothway, Ariz.	Ariz.	INX	Hy-Line 934-F	1	2	2	1	1	1	1	1	2	3
Hy-Line, Iowa	Ark.	INX	Hy-Line 934-F	2	1	3	2	1	1	1	2	3	1
Hy-Line, Iowa (Momm, Cal.)	Cal.	INX	Hy-Line 934-F	3	3	3	3	3	2	2	2	3	1
Wallace, Fla.	Fla.	INX	Hy-Line 934-F	2	2	2	2	2	1	2	1	3	1
Hy-Line, Iowa (Smith, Tenn.)	Tenn.	INX	Hy-Line 934-F	1	1	2	3	1	1	1	1	3	1
Kazmeier, Texas	Texas	INX	Hy-Line 934-F	3	3	3	2	3	2	1	2	3	2

RANGE GROUP RANK OF ENTRIES IN RANDOM SAMPLE EGG PRODUCTION TEST *(Continued)*

ENTRY IDENTIFICATION	TEST	BREEDING	STRAIN OR TRADENAME	INCOME OVER FEED AND CHICK COST ($)	EGG PRODUCTION (Hen housed) (No.)	AGE AT 50% PRODUCTION (Days)	GROWING MORTALITY (%)	LAYING MORTALITY (%)	EGG WEIGHT (oz)	LARGE AND EXTRA LARGE EGGS (%)	FEED PER DOZEN 24-OZ. EGGS (lbs)	ALBUMEN QUALITY (H.U.)	BLOOD SPOTS (%)
Hy-Line Poultry Farm, Des Moines, Iowa													
Rothway, Ariz.	Ariz.		INX	Hy-Line 934-H	1	1	1	2	1	3	3	1	4	1
Hy-Line, Iowa	Ark.		INX	Hy-Line 934-H	2	1	3	2	1	2	2	1	4	2
Hy-Line, Iowa (Hy-Lay, Texas)	Cal.		INX	Hy-Line 934-H	1	2	2	3	1	3	3	1	4	1
Hy-Line, Ont.	C. C.		INX	Hy-Line 934-H	2	2	2	1	1	1	1	1	4	1
Corrigan-Gonzales, Fla.	Fla.		INX	Hy-Line 934-H	1	1	1	1	1	1	1	1	4	2
Wallace, Fla.	Fla.		INX	Hy-Line 934-H	1	1	2	1	1	3	2	1	4	1
Hy-Line, Iowa	Iowa		INX	Hy-Line 934-H		1	1	1	1	1	2		4	2
Coombs, Kansas	Kansas		INX	Hy-Line 934-H	2	1	3	1	1	1	4	1	4	2
Hy-Line, Iowa (Hy-Line, Minn.)	Minn.		INX	Hy-Line 934-H	2	1	1	1	3	2	2	1	4	1
Hy-Line, Iowa	N. H.		INX	Hy-Line 934-H	1	1	1	2	1	3	3	1	4	1
Hy-Line, Iowa (Johnston, Iowa)	N. J.		INX	Hy-Line 934-H	3	3	2	3	4	2	3	1	4	1
Hy-Line, Iowa (Tar Heel, N. C.)	N. C.		INX	Hy-Line 934-H	1	1	1	1	1	3	3	1	4	2
Hy-Line, Iowa	R. I.		INX	Hy-Line 934-H	1	1	1	4	1	2	2	1	4	1
Hy-Line, Iowa (Smith, Tenn.)	Tenn.		INX	Hy-Line 934-H	2	1	2	3	1	1	1	2	4	1
Hy-Lay, Texas	Texas		INX	Hy-Line 934-H	1	1	2	1	1	2	1	1	4	1
Johnson, Texas	Texas		INX	Hy-Line 934-H	2	2	3	1	1	1	1	2	4	2
Ideal Hatchery & Poultry Farm, Cameron, Texas														
Ideal, Texas (White, Cal.)	Cal.	WL	SX	H-3-W	3	3	3	3	3	2	1	2	2	4
Poultry Products, Fla.	Fla.	WL	SX	H-3-W	4	4	4	3	4	1	1	3	3	4
Ideal, Texas	Mo.	WL	SX	H-3-W	2	2	3	3	2	2	2	3	2	3
Owens, Ga.	Texas	WL	SX	H-3-W	2	3	3	2	3	2	3	2	3	2
Ideal, Texas	Wisc.	WL	SX	H-3-W	3	3	3	4	3	3	3	2	3	3
Ideal Hatchery & Poultry Farm, Cameron, Texas														
Ideal, Texas	Ark.	WL	SX	H-3-W-2	3	3	3	3	2	2	2	3	3	3
Ideal, Texas	Cal.	WL	SX	H-3-W-2	3	4	3	2	3	2	1	3	2	4
Ideal, Texas	Iowa	WL	SX	H-3-W-2		4	3	4	4	2	2		1	2
Ideal, Texas	Minn.	WL	SX	H-3-W-2	2	2	3	3	1	2	2	2	3	4
Ideal, Texas	Mo.	WL	SX	H-3-W-2	2	2	3	2	4	2	2	1	2	3
Ideal, Texas	N. J.	WL	SX	H-3-W-2	4	4	4	4	4	2	2	3	3	4
Ideal, Texas	N. C.	WL	SX	H-3-W-2	3	4	3	2	4	2	2	3	3	3
Ideal, Texas	R. I.	WL	SX	H-3-W-2	1	2	4	2	2	2	2	1	3	3
Ideal, Texas	Texas	WL	SX	H-3-W-2	3	3	3	3	3	2	2	3	2	2
Louisiana Hatchery, La. (Ideal, Texas)	Texas	WL	SX	H-3-W-2	4	4	2	2	3	2	1	3	2	3
Ideal, Texas	Wisc.	WL	SX	H-3-W-2	3	3	2	1	3	3	2	3	2	2

RANGE GROUP RANK OF ENTRIES IN RANDOM SAMPLE EGG PRODUCTION TEST *(Continued)*

ENTRY IOENTIFICATION	TEST	BREEDING	STRAIN OR TRADENAME	INCOME OVER FEED AND CHICK COST ($)	EGG PRODUCTION (Hen housed) (No.)	AGE AT 50% PRODUCTION (Days)	GROWING MORTALITY (%)	LAYING MORTALITY (%)	EGG WEIGHT (oz)	LARGE AND EXTRA LARGE EGGS (%)	FEED PER DOZEN 24-OZ. EGGS (lbs)	ALBUMEN QUALITY (H.U.)	BLOOD SPOTS (%)
Kerr, Dr., Hatcheries, Minneota, Minnesota													
Dr. Kerr, Minn.	Cal.	WL	IN	Kerr's 409 C	3	3	2	2	3	1	1	2	1	3
Dr. Kerr, Minn.	Mo.	WL	IN	Kerr's 409 C	3	3	2	1	1	2	2	3	3	1
Kerr, Dr., Hatcheries, Minneota, Minnesota													
Dr. Kerr, Minn.	Minn.		INX	Kerr's P-K 26	4	3	1	1	3	2	2	3	2	4
Dr. Kerr, Minn.	Wisc.		INX	Kerr's P-K 26	2	2	2	2	2	2	2	3	2	1
Keystone Poultry Breeding Farm, Terre Hill, Penna.													
Parks, Penna.	CNY	WL	SX	Park's Keystone	1	1	1	1	2	2	2	1	3	1
Parks, Penna.	Penna.	WL	SX	Park's Keystone	2	2	2	2	2	2	2	2	3	4
Kimber Farms, Inc., Fremont, California													
Arizona State, Ariz.	Ariz.	WL	SX	Kimber K 137	2	2	2	1	2	3	3	2	1	1
Kimber, Cal. (Derreen, B. C.)	B. C.	WL	SX	Kimber K 137	1	2	1	2	1	2	2	1	1	1
Kimber, Cal.	Cal.	WL	SX	Kimber K 137	3	3	2	4	2	2	2	2	1	3
Fla. State, Fla.	Fla.	WL	SX	Kimber K 137	2	2	1	2	1	2	2	2	1	1
Bloomingdale, Fla.	Fla.	WL	SX	Kimber K 137	3	3	1	3	3	3	3	3	1	3
Kimber, Cal.	Iowa	WL	SX	Kimber K 137		2	2	1	1	1	1		1	2
B & C, Kansas	Kansas	WL	SX	Kimber K 137	3	4	1	1	4	4	4	3	1	1
Kimber, Cal. (Kimber, Minn.)	Minn.	WL	SX	Kimber K 137	2	2	1	2	1	2	2	2	1	3
Kimber, Cal. (Mo. Valley, Mo.).....	Mo.	WL	SX	Kimber K 137	3	3	2	3	2	3	2	2	1	1
Kimber, Cal.	N. H.	WL	SX	Kimber K 137	2	3	1	3	3	4	3	1	1	1
Kimber, Cal. (Dover, N. J.)	N. J.	WL	SX	Kimber K 137	2	2	1	2	3	2	3	1	1	1
Kimber, Cal. (Larry's, N. Y.).....	CNY	WL	SX	Kimber K 137	2	2	2	1	1	2	2	2	1	3
Kimber, Cal. (Hubbard, N. C.).....	N. C.	WL	SX	Kimber K 137	3	2	1	3	1	2	2	3	1	2
Longenecker's, Penna.	Penna.	WL	SX	Kimber K 137	3	3	3	1	3	2	2	3	1	2
Hubbard, N. H.	Penna.	WL	SX	Kimber K 137	2	2	2	3	1	3	2	2	2	2
Kimber, Cal. (Kimber-Hubbard, N. H.)....	R. I.	WL	SX	Kimber K 137	2	2	2	4	2	2	1	1	1	3
Kimber, Cal. (Nichols, Tenn.).....	Tenn.	WL	SX	Kimber K 137	3	3	2	1	4	3	3	2	1	1
Western, Texas	Texas	WL	SX	Kimber K 137	2	2	1	4	2	3	2	2	1	2
Kimber, Cal. (Meadowview, Wisc.)	Wisc.	WL	SX	Kimber K 137	2	2	1	1	2	2	2	1	2	2
Kimber Farms, Inc., Fremont, California													
Kimber, Cal. (Kimber, Pomona, Cal.)	Cal.	WL	SX	Kimber K 141	1	2	2	1	1	3	2	1	2	3

RANGE GROUP RANK OF ENTRIES IN RANDOM SAMPLE EGG PRODUCTION TEST *(Continued)*

ENTRY IDENTIFICATION	TEST	BREEDING	STRAIN OR TRADENAME	INCOME OVER FEED AND CHICK COST ($)	EGG PRODUCTION (Hen housed) (No.)	AGE AT 50% PRODUCTION (Days)	GROWING MORTALITY (%)	LAYING MORTALITY (%)	EGG WEIGHT (oz)	LARGE AND EXTRA LARGE EGGS (%)	FEED PER DOZEN 24-OZ. EGGS (lbs)	ALBUMEN QUALITY (H.U.)	BLOOD SPOTS (%)
Kimber Farms, Inc., Fremont, California													
Arizona State, Ariz.	Ariz.	WL SX	Kimber K 155	2	2	2	1	2	4	3	2	4	2
Miami International, Fla.	Fla.	WL SX	Kimber K 155	3	2	1	1	3	1	2	3	2	2
Kimber, Cal. (Mo. Valley, Mo.).....	Mo.	WL SX	Kimber K 155	3	3	2	1	2	2	2	3	2	3
Western, Texas	Texas	WL SX	Kimber K 155	3	3	1	2	4	3	3	3	2	1
Kimber Farms, Inc., Fremont, California													
Kimber, Cal. (Kimber, Pomona, Cal.).....	Cal.	Synx WL BX	Kimber K 222	2	3	2	3	3	2	2	2	3	2
Kimber, Cal. (Wilke's, Wisc.)	Wisc.	Synx WL BX	Kimber K 222	2	2	1	3	3	2	3	1	3	3
Kingstowne Poultry Farm, Kingston, Rhode Island													
Kingstowne, R. I.	R. I.	RIRxWR BX	Buff Sex Link	3	3	2	2	1	2	2	3	2	2
Klongland Hatchery, Stoughton, Wisconsin													
Klongland, Wisc.	Wisc.	CGxWL BX	K Cross	2	2	1	3	1	1	2	2	4	2
Law, H. A., Hatfield Pt., New Brunswick													
Law, N. B.	N. B.	RIR SX	Law's Red Cross	3	3	1	2	3	2	2	3	2	1
Lawton, A. C. & Sons, Foxboro, Massachusetts													
Lawton, Mass.	Mo.	RIRxWPR	Buff Sex Link	4	4	4	4	3	1	1	4	3	4
Lawton, Mass.	N. H.	RIRxWPR	Buff Sex Link	3	3	4	3	1	1	1	4	2	4
Lawton, Mass.	CNY	RIRxWPR	Buff Sex Link	1	2	3	1	1	1	1	3	3	1
Lawton, Mass.	Penna.	RIRxWPR	Buff Sex Link	1	1	3	2	1	1	1	2	3	3
Lawton, Mass.	R. I.	RIRxWPR	Buff Sex Link	2	2	4	1	1	1	1	3	3	3
Macdonald College, Ste. Anne de Bellevue, Quebec													
Macdonald, Que.	C. C.	WL SX	Macdonald 321	2	2	3	4	1	4	4	2	4	4
Mathews Poultry Farm, Burlington, Wisconsin													
Mathews, Wisc.	Wisc.	WL SX	M-333-T	3	3	4	4	3	2	1	2	3	1
Musser Leghorn Farm, Mt. Joy, Pennsylvania													
Musser, Penna.	Penna.	WL SX	Musser	3	3	4	1	3	3	3	3	2	4
Nelson, George F., Truro, Nova Scotia													
Nelson, N. S.	N. B.	RIRxLS BX	Red x Sussex	3	3	2	2	1	2	3	4	3	4
Noble Bros., Orangeville, Ontario													
Noble, Ont.	C. C.	WL SX	Noble N-60	3	3	3	1	2	2	2	3	3	4
Norco Poultry Breeding Farm, Norco, California													
Norco, Cal.	Cal.	CGxWL BX	Norco Gray	2	1	2	3	1	3	3	3	4	2
Norris, Vernon, Valencia, Pennsylvania													
Norris, Penna.	Penna.	WL PS	Efficiency	3	4	4	3	4	2	2	3	2	3

RANGE GROUP RANK OF ENTRIES IN RANDOM SAMPLE EGG PRODUCTION TEST *(Continued)*

ENTRY IDENTIFICATION	TEST	BREEDING	STRAIN OR TRADENAME	INCOME OVER FEED AND CHICK COST ($)	EGG PRODUCTION (Hen housed) (No.)	AGE AT 50% PRODUCTION (Days)	GROWING MORTALITY (%)	LAYING MORTALITY (%)	EGG WEIGHT (oz)	LARGE AND EXTRA LARGE EGGS (%)	FEED PER DOZEN 24-OZ. EGGS (lbs)	ALBUMEN QUALITY (H.U.)	BLOOD SPOTS (%)
No. Central Regional Poultry Br. Lab., Lafayette, Indiana													
Univ. of Ark., Ark. (Purdue Univ., Ind)	Ark.	WL	PS Reg. Cornell Contr.	4	4	3	2	4	4	4	4	2	3
Purdue Univ., Ind.	Cal.	WL	PS Reg. Cornell Contr.	4	4	4	4	3	4	4	3	2	4
Purdue Univ., Ind.	Fla.	WL	PS Reg. Cornell Contr.	4	4	4	3	3	4	4	4	2	4
Purdue Univ., Ind.	Mo.	WL	PS Reg. Cornell Contr.	4	4	4	3	2	3	3	4	2	3
Purdue Univ., Ind.	CNY	WL	PS Reg. Cornell Contr.	4	3	2	3	3	4	4	3	2	2
Purdue Univ., Ind.	Tenn.	WL	PS Reg. Cornell Contr.	3	3	3	4	2	4	4	3	2	3
Purdue Univ., Ind.	Texas	WL	PS Reg. Cornell Contr.	4	4	3	2	3	4	4	4	3	3
Purdue Univ., Ind.	Wisc.	WL	PS Reg. Cornell Contr.	4	3	4	3	3	3	4	4	3	3
No. Central Regional Poultry Br. Lab., Lafayette, Indiana													
No. Central Regional, Ind.	R. I.	RIR	PS Reg. Red Control	4	4	2	4	3	4	4	4	3	2
No. Central Regional Poultry Br. Lab., Lafayette, Indiana													
No. Central Regional, Ind.	Cal.	RIRxWL	BX Reg. Red x Cornell	4	4	3	3	3	3	3	4	3	3
Oka Group, Oka, Two Mountains, Quebec													
Oka Group, Que.	C. C.	WL	SX Oka 93	2	3	3	3	3	2	1	2	2	3
Pennsylvania-Indiana Farm Bureau, Grantville, Penna.													
Penna. Fr. Bur., Penna.	CNY	WL	SX Princess 55	1	1	2	2	1	2	2	1	2	2
Penna. Fr. Bur., Penna.	N. C.	WL	SX Princess 55	1	1	1	3	1	3	3	1	1	2
Penna. Fr. Bur., Penna.	Penna.	WL	SX Princess 55	1	1	3	2	2	3	3	1	1	3
Ind. Fr. Bur., Ind. (Ind. F. B., Lafayette, Ind)	Wisc.	WL	SX Princess 55	2	2	2	3	2	3	3	2	1	2
Pennsylvania-Indiana Farm Bureau, Grantville, Penna.													
Penna. Fr. Bur., Penna.	Penna.	WL	SX Duchess 60	1	1	2	3	2	4	3	1	1	3
Pennsylvania-Indiana Farm Bureau, Grantville, Penna.													
Ind. Fr. Bur., Ind.	Mo.	WL	SX Countess 75	3	4	3	3	4	2	2	2	2	4
Ind. Fr. Bur., Ind.	Tenn.	WL	SX Countess 75	3	3	3	3	4	2	1	3	2	3
Ind. Fr. Bur., Ind. (Ind. F. B., Lafayette, Ind)	Wisc.	WL	SX Countess 75	1	1	1	2	2	2	2	1	2	3
Randall Hatchery & Breeding Farm, Montclair, California													
Randall, Cal.	Cal.	CGxWL	BX Randall Gray x Leg.	2	2	2	2	3	3	3	2	3	2
Rapp Leghorn Farm, Farmingdale, New Jersey													
Rapp, N. J. (Redline, B. C.)	B. C.	WL	SX Rapp Linecross	1	2	2	1	2	1	2	1	2	2
Maple Leaf, Fla.	Fla.	WL	SX Rapp Linecross	2	2	4	2	2	1	1	3	3	2
Rapp, N. J.	Mo.	WL	SX Rapp Linecross	4	4	3	1	3	2	2	4	3	4
Rapp, N. J.	N. J.	WL	SX Rapp Linecross	2	2	4	3	1	2	1	2	3	3
Rapp, N. J. (Kostinen, N. Y.)	CNY	WL	SX Rapp Linecross	2	3	2	1	3	2	1	2	2	3
Rapp, N. J. (Ward's, Iowa)	Wisc.	WL	SX Rapp Linecross	2	2	4	1	2	2	2	2	3	2

RANGE GROUP RANK OF ENTRIES IN RANDOM SAMPLE EGG PRODUCTION TEST *(Continued)*

ENTRY IDENTIFICATION	TEST	BREEDING	STRAIN OR TRADENAME	INCOME OVER FEED AND CHICK COST ($)	EGG PRODUCTION (Hen housed) (No.)	AGE AT 50% PRODUCTION (Days)	GROWING MORTALITY (%)	LAYING MORTALITY (%)	EGG WEIGHT (oz)	LARGE AND EXTRA LARGE EGGS (%)	FEED PER DOZEN 24-OZ. EGGS (lbs)	ALBUMEN QUALITY (H.U.)	BLOOD SPOTS (%)
Raynor, Ralph E., Charlottetown, Prince Edward Island													
Raynor, P.E.I.	C. C.	WL	SX Raynor R 12	3	3	3	3	3	3	3	3	3	3
Raynor, Ralph E., Charlottetown, Prince Edward Island													
Raynor, P.E.I.	C. C.	WL	SX Raynor R 63	3	3	4	1	3	3	3	3	3	2
Raynor, P.E.I.	N. B.	WL	SX Raynor R 63	3	3	1	2	3	4	4	3	2	3
Richardson Poultry Breeding Farm, Redlands, California													
Richardson, Cal.	Cal.	WA	BX White Austra	3	2	2	1	1	4	4	3	4	2
Riddle Spring Poultry Farm, Manchester, New Hampshire													
Riddle Spring, N. H.	N. H.	RIRxWR	BX Super-Triway	2	3	4	3	3	2	2	4	3	3
ROP Breeders' Hatchery, Winnipeg, Manitoba													
ROP Breeders', Man.	Alta.	WL	SX Keyline 110	1	1	1	4	2	4	3	1	2	3
ROP Breeders' Hatchery, Winnipeg, Manitoba													
ROP Breeders', Man.	B. C.	WL	SX Keyline 110B	3	4	1	4	4	2	2	3	2	3
ROP Breeders' Hatchery, Winnipeg, Manitoba													
ROP Breeders', Man.	C. C.	WL	SX Keyline 110C	2	2	1	1	3	3	3	1	1	2
St. Augustin Cooperative Hatchery, St. Augustin, Quebec													
Coop., St. Augustin, Que.	C. C.	WL	SX Corvette A1	2	3	2	2	2	1	1	3	1	3
Coop., St. Augustin, Que.	N. B.	WL	SX Corvette A1	3	3	3	1	2	2	2	2	1	3
Ste. Martine Cooperative Hatchery, Ste. Martine, Quebec													
Coop., Ste. Martine, Que.	C. C.	WL	SX La Chateauguay 583	2	3	3	1	2	3	3	2	1	1
Ste. Martine Cooperative Hatchery, Ste. Martine, Quebec													
Coop., Ste. Martine, Que.	C. C.	WL	SX La Chateauguay 593	2	3	4	3	3	2	1	2	3	2
Sanders Chick Hatchery, Moncton, New Brunswick													
Sanders, N. B.	N. B.	WL	SX Keystones	4	4	4	4	4	3	4	3	1	3
Schaible, Louis D., Shiloh, New Jersey													
Schaible, N. J.	N. J.	WL	SX K Cross	3	3	4	4	3	2	2	3	2	1
Schaible, N. J.	Penna.	WL	SX K Cross	2	2	4	2	2	3	3	2	3	3
Schuyler Poultry Farms, LeRoy, New York													
Schuyler, N. Y.	CNY	WL	SX EGG Champs	2	2	3	3	1	3	3	2	4	3
Schuyler Poultry Farms, LeRoy, New York													
Schuyler, N. Y.	Penna.	WL	SX Egg Lines	4	4	3	1	3	3	4	3	3	3
Schuyler, N. Y.	Tenn.	WL	SX Egg Lines	2	1	2	3	3	4	4	3	4	3

RANGE GROUP RANK OF ENTRIES IN RANDOM SAMPLE EGG PRODUCTION TEST *(Continued)*

ENTRY IOENTIFICATION	TEST	BREEOING		STRAIN OR TRAOENAME	INCOME OVER FEEO ANO CHICK COST ($)	EGG PRO-OUCTION (Hen housed) (No.)	AGE AT 50% PRO-OUCTION (Days)	GROWING MORTALITY (%)	LAYING MORTALITY (%)	EGG WEIGHT (oz)	LARGE ANO EXTRA LARGE EGGS (%)	FEEO PER OOZEN 24-OZ. EGGS (lbs)	ALBUMEN QUALITY (H.U.)	BLOOO SPOTS (%)
Shaver Poultry Breeding Farm, Galt, Ontario														
Shaver, Ont. (Greider, Pa.)	Cal.	WL	SX	Starcross 288	1	2	3	3	3	1	1	1	3	3
Shaver, Ont.	C. C.	WL	SX	Starcross 288	1	1	1	1	1	2	1	1	3	3
Shaver, Ont.	Iowa	WL	SX	Starcross 288		1	2	1	3	3	3		3	2
Shaver, Ont.	Mo.	WL	SX	Starcross 288	1	1	2	3	1	2	2	1	3	3
Shaver, Ont.	N. B.	WL	SX	Starcross 288	1	1	3	4	1	3	3	1	3	2
Shaver, Ont.	N. J.	WL	SX	Starcross 288	1	2	2	2	3	2	2	1	4	3
Shaver, Ont.	CNY	WL	SX	Starcross 288	1	1	1	3	3	2	2	1	3	3
Shaver, Ont. (Greider, Pa.)	N. C.	WL	SX	Starcross 288	2	2	3	4	2	1	1	2	3	3
Greider, Penna.	Penna.	WL	SX	Starcross 288	3	2	2	3	3	3	3	3	3	3
Shaver, Ont.	R. I.	WL	SX	Starcross 288	1	1	3	4	1	2	1	1	3	1
Shaver, Ont.	Tenn.	WL	SX	Starcross 288	1	1	2	3	3	2	2	2	3	4
DeWitt, Texas	Texas	WL	SX	Starcross 288	1	1	2	1	2	1	2	1	3	2
Swift & Co., Texas	Texas	WL	SX	Starcross 288	2	2	2	2	3	2	1	2	3	2
Shaver, Ont. (Matthews, Wisc.).....	Wisc.	WL	SX	Starcross 288	2	2	2	3	2	2	2	2	3	2
Shaver Poultry Breeding Farm, Galt, Ontario														
Shaver, Ont.	C. C.	WL	SX	Starcross 292	3	3	1	3	2	3	3	3	3	3
Greider, Penna.	Penna.	WL	SX	Starcross 292	3	3	1	4	2	3	2	3	4	1
Shaver, Ont.	Texas	WL	SX	Starcross 292	2	2	3	4	2	2	2	2	3	3
Shaver Poultry Breeding Farm, Galt, Ontario														
Shaver, Ont.	B. C.	CGxWL	BX	Starcross 444	1	2	1	2	2	1	1	3	4	1
Shaver, Ont.	C. C.	CGxWL	BX	Starcross 444	2	2	1	1	2	1	1	2	4	1
Shaver, Ont. (Swift & Co., Minn.).....	Minn.	CGxWL	BX	Starcross 444	4	4	1	2	1	1	3	4	4	2
Shaver, Ont.	Mo.	CGxWL	BX	Starcross 444	1	2	1	3	2	2	2	2	4	2
Shaver Poultry Breeding Farm, Galt, Ontario														
Shaver, Ont.	N. B.	RIR	SX	Starcross 555	1	2	1	3	3	2	1	2	2	2
Smyth, James, Nanaimo, British Columbia														
Smyth, B. C.	B. C.	WL	SX	Smyth 501 x 547	4	4	4	4	3	4	4	4	3	4
Starline Breeders Hatchery, Saskatoon, Saskatchewan														
Starline, Sask.	Alta.	CGxWL	BX	Pearlette	3	2	1	1	2	3	4	4	4	1
Starline, Sask.	B. C.	CGxWL	BX	Pearlette	3	3	1	2	3	2	2	3	4	1
Starline, Sask.	C. C.	CGxWL	BX	Pearlette	3	3	2	1	3	2	3	3	3	1
Stever Hatchery, Huntingdon, Pennsylvania														
Garrison, N. J. (Stever, Pa.).....	N. J.	WL	SX	Stever SC-300	2	2	1	2	2	3	3	2	4	2
Garrison, N. J. (Stever, Pa.).....	N. C.	WL	SX	Stever SC-300	2	2	2	1	1	3	3	2	4	3
Stever, Penna.	Penna.	WL	SX	Stever SC-300	2	2	2	2	3	4	4	2	4	2
Stever, Penna.	Tenn.	WL	SX	Stever SC-300	3	3	2	1	2	4	2	2	4	3

RANGE GROUP RANK OF ENTRIES IN RANDOM SAMPLE EGG PRODUCTION TEST *(Continued)*

ENTRY IDENTIFICATION	TEST	BREEDING		STRAIN OR TRADENAME	INCOME OVER FEED AND CHICK COST ($)	EGG PRODUCTION (Hen housed) (No.)	AGE AT 50% PRODUCTION (Days)	GROWING MORTALITY (%)	LAYING MORTALITY (%)	EGG WEIGHT (oz)	LARGE AND EXTRA LARGE EGGS (%)	FEED PER DOZEN 24-OZ. EGGS (lbs)	ALBUMEN QUALITY (H.U.)	BLOOD SPOTS (%)
Stone's Poultry Farm, Dinuba, California														
Stone, Cal.	Cal.	WL	SX	Stone's H 56	1	2	2	2	1	3	2	2	2	2
Stone, Cal.	Iowa	WL	SX	Stone's H 56		1	1	2	2	4	4		2	1
Stone, Cal. (Blue Ribbon, N. J.)	N. J.	WL	SX	Stone's H 56	2	1	1	1	1	4	4	1	2	2
Sturtevant Farms, Inc., Halifax, Massachusetts														
Sturtevant, Mass.	N. H.	RIRxWPR		Golden Sex Link	1	2	2	3	1	1	1	2	3	4
Sunnyside Hatchery, Watertown, Wisconsin														
Sunnyside, Wisc.	Wisc.	CGxWL	BX	Wisco White	2	1	1	2	2	2	3	1	4	3
Townline Poultry Farm, Zeeland, Michigan														
Townline, Mich.	Mo.	WL	SX	Townline SC 30	3	3	2	2	1	2	2	3	2	2
Townline, Mich.	Penna.	WL	SX	Townline SC 30	1	1	2	4	2	3	3	2	2	3
Townline, Mich.	Wisc.	WL	SX	Townline SC 30	4	4	3	2	3	3	3	4	2	2
Triska, Eric, Edmonton, Alberta														
Triska, Alta.	Alta.	WL	SX	Belmont 292	3	4	4	1	4	3	3	4	2	2
Triska, Alta.	C. C.	WL	SX	Belmont 292	3	3	3	4	3	2	2	3	2	2
Triska, Eric, Edmonton, Alberta														
Triska, Alta.	Alta.	WL	SX	Belmont 292 A	1	2	4	3	1	1	1	3	2	2
Triska, Alta.	C. C.	WL	SX	Belmont 292 A	3	3	3	2	3	1	1	4	1	3
University of Tennessee, Knoxville, Tennessee														
Univ. of Tenn., Tenn.	Tenn.	WL	PS	Pure Line	4	4	3	1	4	3	3	4	1	4
Vancrest Farms, Hyde Park, New York														
Vancrest, N. Y.	CNY	RIRxNH	BX	All Red	4	4	4	3	4	2	1	4	1	1
Vriends, Arnold, Covehead Road, Prince Edward Island														
Vriends, P. E. I.	C. C.	WL	SX	Mac 250	2	2	2	2	1	3	3	3	1	2
Warren, J. J., Inc., North Brookfield, Massachusetts														
Warren, Mass. (Bundesen, Cal.)	Cal.	Syn x WL		Warren B-63	1	2	2	3	3	2	2	1	4	3
Warren, Mass.	Tenn.	Syn x WL		Warren B-63	3	4	3	4	4	3	3	3	4	1
Warren, J. J., Inc., North Brookfield, Massachusetts														
Warren, Mass.	Ark.	WL	SX	Warren Darby DX	3	3	4	3	3	3	3	3	3	2
Warren, Mass. (Jack Frost, Minn.)	Minn.	WL	SX	Warren Darby DX	2	2	4	4	3	2	1	2	2	1
Warren, Mass.	Mo.	WL	SX	Warren Darby DX	3	3	4	3	3	3	2	3	3	3
Warren, Mass.	Penna.	WL	SX	Warren Darby DX	2	3	3	4	3	2	2	2	2	2
Warren, Mass.	R. I.	WL	SX	Warren Darby DX	1	1	4	2	1	3	2	1	2	4
Warren, Mass. (Kelly, Iowa)	Wisc.	WL	SX	Warren Darby DX	4	4	4	3	4	4	3	4	2	4
Warren, J. J., Inc., North Brookfield, Massachusetts														
Warren, Mass. (Bundesen, Cal.)	Cal.	WL x Syn		Warren J. J.	3	4	4	3	3	3	2	3	3	4
Warren, Mass.	Penna.	WL x Syn		Warren J. J.	3	3	2	3	2	4	4	3	2	2

RANGE GROUP RANK OF ENTRIES IN RANDOM SAMPLE EGG PRODUCTION TEST *(Continued)*

ENTRY IDENTIFICATION	TEST	BREEDING	STRAIN OR TRADENAME	INCOME OVER FEED AND CHICK COST ($)	EGG PRODUCTION (Hen housed) (No.)	AGE AT 50% PRODUCTION (Days)	GROWING MORTALITY (%)	LAYING MORTALITY (%)	EGG WEIGHT (oz)	LARGE AND EXTRA LARGE EGGS (%)	FEED PER DOZEN 24-DZ. EGGS (lbs)	ALBUMEN QUALITY (H.U.)	BLOOD SPOTS (%)
Warren, J. J., Inc., North Brookfield, Massachusetts													
Warren, Mass. (Redline, B. C.)	B. C.	RIR x RIW	Sex-Sal-Link-F	1	2	1	4	3	1	1	2	2	3
Warren, Mass.	Mo.	RIR x RIW	Sex-Sal-Link-F	3	3	3	1	2	2	2	3	2	3
Warren, Mass.	N. B.	RIR x RIW	Sex-Sal-Link-F	2	3	4	1	1	2	1	3	3	1
Warren, Mass.	N. H.	RIR x RIW	Sex-Sal-Link-F	2	2	4	2	2	2	1	3	3	2
Warren, Mass. (Ward St., Mass.)	N. J.	RIR x RIW	Sex-Sal-Link-F	2	2	3	4	2	1	1	3	2	4
Warren, Mass.	CNY	RIR x RIW	Sex-Sal-Link-F	1	2	3	1	1	2	1	3	3	1
Warren, Mass.	Penna.	RIR x RIW	Sex-Sal-Link-F	1	2	3	2	1	2	1	2	2	3
Warren, Mass.	R. I.	RIR x RIW	Sex-Sal-Link-F	3	3	3	1	3	1	2	2	3	1
Warren, Mass. (Trettin, Iowa)	Wisc.	RIR x RIW	Sex-Sal-Link-F	1	2	3	3	1	1	1	2	2	2
Webster Poultry Farm, Auburn, New York													
Webster, N. Y.	CNY	RIR	SX New Red	4	4	4	1	4	3	3	4	3	1
Welp's Breeding Farm, Bancroft, Iowa													
Welp, Iowa (Hegerfeld, Wisc.) & (Parkersburg, Iowa)	Wisc.		MSC Welp Line 542	2	2	1	4	3	3	3	2	4	3
Welp's Breeding Farm, Bancroft, Iowa													
Welp's, Iowa	Ark.	WL	SX Welp Line 901	1	2	2	2	3	3	2	1	3	3
Welp's Breeding Farm, Bancroft, Iowa													
Welp's, Iowa	Ark.	WL	SX Welp Line 937	1	2	1	3	2	1	2	1	3	4
Welp's, Iowa	Cal.	WL	SX Welp Line 937	1	2	3	3	1	2	1	1	2	4
Welp's, Iowa	Iowa	WL	SX Welp Line 937		3	2	1	2	2	2		2	3
Welp's, Iowa	Kansas	WL	SX Welp Line 937	1	2	2	1	3	1	1	1	3	4
Welp's, Iowa (Morgan, Minn.)	Minn.	WL	SX Welp Line 937	3	4	3	3	4	3	3	3	3	4
Welp's, Iowa	Tenn.	WL	SX Welp Line 937	2	3	2	2	2	2	1	2	3	3
Welp's, Iowa	Texas	WL	SX Welp Line 937	1	2	2	2	1	2	2	1	3	2
Welp's, Iowa (Iliffs, Wisc.) & (Readlyn, Iowa)	Wisc.	WL	SX Welp Line 937	2	3	3	2	3	2	1	2	2	3
White Farms, Corona, California													
White, Cal.	Cal.	CGxWL	BX White Cross	3	3	2	2	3	3	3	3	3	3
Wood Poultry Breeding Farm, Pomona, California													
Wood, Cal.	Cal.	AW	BX Austra-White	3	3	3	1	3	2	3	3	2	1

INTRODUCTION

Missouri - Missouri National Egg Laying Contest, Mountain Grove, Charles McElyea, Supervisor

New York - New York State Egg Laying Test, Farmingdale, Long Island, R. R. Stockbridge, Supervisor

Two official Standard Egg Laying Tests operate under a uniform set of rules which were adopted by and are revised by the Council of American Official Poultry Tests. It must be recognized that these rules cover only certain phases of the test procedures. Such things as feeding programs, lighting, and other management details are determined by the local test supervisor.

The point system that is used to determine the average number of points per bird is based on the egg weight of the individual eggs. The following chart gives the point value assigned to eggs of varying weights:

Wt. of Egg in Oz. per Doz.	Point Value Assigned	Wt. of Egg in Oz. per Doz.	Point Value Assigned
18	0.70	23	0.95
19	.75	24	1.00
20	.80	25	1.05
21	.85	26	1.10
22	.90		

Any egg weighing less than 17 ounces per dozen is not recorded. Any egg weighing more than 26 ounces per dozen is not given any additional point credit.

MISSOURI NATIONAL EGG LAYING CONTEST
(Descriptive Summary)

Cooperators in the Missouri National Egg Laying Contest send in between 45 and 50 chicks within one week of their hatch date in March. These birds are brooded intermingled and reared on range. All birds are vaccinated for Fowl Pox, Newcastle, Bronchitis, and Laryngotracheitis. The birds are approximately 25 weeks of age when they enter the laying house. Fifteen birds from each entry are housed, two entries of the same variety or breeding to the pen, which allows about 3.7 square feet per bird. All the pens are trapnested seven days per week. At the end of one month of trapnesting, the extra birds (all over 13) are removed. Of course, the trapnesting records are used to cull the poorest producers from an entry. During the contest, all birds are treated as nearly alike as possible by having identical pens and facilities, and being fed the same feed. Fresh water, grit, and oyster shell are provided at all times. An autopsy is performed by a licensed veterinarian on all dead birds.

During the first two months of the Missouri National Egg Laying Test, all of the eggs laid are weighed individually; points are assigned according to the chart above, and they are recorded. At the end of each of the first two months when all eggs laid are being weighed, the total points for a hen are determined by the addition of the points assigned to each egg which she laid during the month. After the first two months, eggs are weighed only three days per month, but the values in points which are assigned are projected to include the total number of eggs laid that month.

NEW YORK STATE EGG LAYING TEST
(Descriptive Summary)

Ready-to-lay pullets are received during the last week in September for the opening date of October 1, each year. The test lasts 350 days. All birds are given an anti-stress product in the drinking water for two days following their arrival. All birds are vaccinated for Laryngotracheitis on October 15th each year, and any pens not vaccinated for Fowl Pox are done at the same time. The vaccination is done at night. Birds are treated for worms.

Each compartment in the Test can hold two pens of thirteen birds, plus four extra birds. Extra birds are used as replacements during the first two weeks of the Test, if needed, and if not used, are removed on October 15th. Fresh feed is bought by competitive bid each month. All-mash is used, supplemented with a top grade poultry oats each day. Pellets of all-mash ration are also used. Grit, oyster shell, and fresh water are before the birds at all times.

Average actual egg weights and the percentage production on a hen-day and hen-housed basis are included in the monthly reports. Feed consumption figures are also supplied monthly. Weekly reports include a timely poultry article and the records for the week and to-date. The number of eggs, the point score, percent production, and the percent of large and extra-large eggs laid by each pen for the week are included.

For several years, we have operated an old hen test without force molting. The birds are moved to clean pens and trapnested for 365 days beyond the pullet year.

FIFTY-THIRD MISSOURI NATIONAL EGG LAYING CONTEST
MISSOURI STATE POULTRY EXPERIMENT STATION
MOUNTAIN GROVE, MISSOURI 1963-64

Owner and Address	Breed	No. of Birds Entered	Points Per Bird	Eggs Per Bird	Percent Mortality	Ave. March Egg Wt.
Cashman Leghorn Farms, CWebster, Ky.	SCWL	13	292.54	288.4	0.0	25.35
Cashman Leghorn Farms, Webster, Ky.	SCWL	13	269.48	260.8	7.7	26.00
Cashman Leghorn Farms, Webster, Ky.	SCWL	13	294.21	280.4	7.7	26.67
Colonial Poultry Farms, Pleasant Hill, Mo.	SCWL	13	235.40	224.0	15.4	26.40
Colonial Poultry Farms, Pleasant Hill, Mo.	SCWL	13	238.20	231.2	7.7	25.37
Dirkse Leghorn Farm, Zeeland, Michigan	SCWL	13	253.88	250.6	0.0	25.43
Dirkse Leghorn Farm, Zeeland, Michigan	SCWL	13	284.40	267.8	0.0	26.40
Eby's Poultry Farm, Carrollton, Texas	SCWL	13	276.25	270.1	7.7	25.54
Eby's Poultry Farm, Carrollton, Texas	SCWL	13	275.07	269.9	15.4	25.26
Shaver Poultry Br. Fr., Galt, Ont., Canada	SCWL	13	306.22	294.6	0.0	30.54
Shaver Poultry Br. Fr., Galt, Ont., Canada	SCWL	13	290.72	279.3	0.0	26.02
Shaver Poultry Br. Fr., Galt, Ont., Canada	SCWL	13	298.20	293.7	0.0	25.32
Shaver Poultry Br. Fr., Galt, Ont., Canada	SCWL	13	267.79	259.9	0.0	26.15
State Plty. Exp. Station, Mountain Grove, Mo.	SCWL	13	214.84	216.2	23.1	24.83
State Plty. Exp. Station, Mountain Grove, Mo.	SCWL	13	259.93	253.5	15.4	26.17
State Plty. Exp. Station, Mountain Grove, Mo.	SCWL	13	230.35	224.8	15.4	25.90
State Plty. Exp. Station, Mountain Grove, Mo.	SCWL	13	247.65	242.3	15.4	25.62

FIFTY-THIRD MISSOURI NATIONAL EGG LAYING CONTEST - (Continued)

Owner and Address	Breed	No. of Birds Entered	Points Per Bird	Eggs Per Bird	Percent Mortality	Ave. March Egg Wt.
State Plty. Exp. Station, Mountain Grove, Mo.	SCWL	13	254.15	247.3	15.4	26.47
State Plty. Exp. Station, Mountain Grove, Mo.	SCWL	13	256.27	241.8	7.7	27.18
State Plty. Exp. Station, Mountain Grove, Mo.	SCWL	13	267.77	258.5	15.4	26.26
State Plty. Exp. Station, Mountain Grove, Mo.	SCWL	13	250.98	248.2	7.7	25.32
State Plty. Exp. Station, Mountain Grove, Mo.	SCWL	13	254.93	251.2	0.0	25.95
State Plty. Exp. Station, Mountain Grove, Mo.	SCWL	13	215.23	214.3	23.1	25.81
State Plty. Exp. Station, Mountain Grove, Mo.	SCWL	13	260.59	250.5	15.4	26.93
State Plty. Exp. Station, Mountain Grove, Mo.	SCWL	13	225.84	215.5	38.5	27.03
State Plty. Exp. Station, Mountain Grove, Mo.	SCWL	13	231.42	229.2	23.1	25.73
State Plty. Exp. Station, Mountain Grove, Mo.	SCWL	13	236.37	231.5	15.4	25.38
State Plty. Exp. Station, Mountain Grove, Mo.	SCWL	13	233.69	230.0	23.1	25.75
State Plty. Exp. Station, Mountain Grove, Mo.	SCWL	13	253.82	242.6	15.4	27.07
State Plty. Exp. Station, Mountain Grove, Mo.	SCWL	13	276.52	273.9	15.4	25.10
State Plty. Exp. Station, Mountain Grove, Mo.	SCWL	13	255.76	255.5	7.7	25.08
State Plty. Exp. Station, Mountain Grove, Mo.	NH	13	203.54	195.8	30.8	26.47
State Plty. Exp. Station, Mountain Grove, Mo.	NH	13	155.65	152.1	53.8	26.55
State Plty. Exp. Station, Mountain Grove, Mo.	NH	13	171.20	169.8	46.2	25.10
State Plty. Exp. Station, Mountain Grove, Mo.	NH	13	161.96	159.0	46.2	25.82
State Plty. Exp. Station, Mountain Grove, Mo.	NH	13	201.53	195.0	23.1	26.09
State Plty. Exp. Station, Mountain Grove, Mo.	NH	13	122.24	117.2	76.9	27.06
Harco Orchards & Plty. Fr., So. Easton, Mass.	SCRIR	13	253.89	246.8	15.4	25.68
Harco Orchards & Plty. Fr., So. Easton, Mass.	SCRIR	13	276.20	267.6	0.0	25.64
Cashman Leghorn Farm, Webster, Ky.	Incross	13	307.68	302.9	0.0	25.41
L. H. Raddatz, Houdan Fr., Clements, Minn.	Houdans	13	67.24	79.5	46.2	21.55
Colonial Poultry Farms, Pleasant Hill, Mo.	Crossbred	13	225.58	218.8	7.7	25.62
Colonial Poultry Farms, Pleasant Hill, Mo.	Crossbred	13	263.15	255.5	0.0	25.85
Colonial Poultry Farms, Pleasant Hill, Mo.	Crossbred	13	254.90	252.8	0.0	25.18
Colonial Poultry Farms, Pleasant Hill, Mo.	Crossbred	13	249.73	231.1	0.0	28.04
Harco Orchards & Plty. Fr., So. Easton, Mass.	Crossbred	13	224.85	281.8	0.0	26.82
Harco Orchards & Plty. Fr., So. Easton, Mass.	Crossbred	13	294.26	273.1	0.0	27.50
Parks Poultry Farm, Altoona, Pa.	Crossbred	13	269.78	257.1	0.0	26.04
Parks Poultry Farm, Altoona, Pa.	Crossbred	13	272.23	256.2	0.0	26.47

FORTY-SECOND ANNUAL NEW YORK STATE EGG LAYING TEST
STATE UNIVERSITY AGRICULTURAL & TECHNICAL INSTITUTE
FARMINGDALE, L. I., N. Y. 1963-64

Owner and Address	Breed	No. of Birds Entered	Points Per Bird	Eggs Per Bird	Percent Mortality	Ave. Egg Wt.
Cashman Leghorn Farms, Webster, Ky.	SCWL	13	267.93	258.3	0.0	24.97
Cashman Leghorn Farms, Webster, Ky.	SCWL	13	276.56	273.3	0.0	25.11
Cashman Leghorn Farms, Webster, Ky.	SCWL	13	255.24	240.8	7.7	24.52
Colonial Poultry Farms, Pleasant Hill, Mo.	SCWL	13	244.35	232.9	15.4	26.90
Colonial Poultry Farms, Pleasant Hill, Mo.	SCWL	13	269.78	254.5	0.0	26.94
Dirkse Leghorn Farm, Zeeland, Michigan	SCWL	13	280.23	263.6	0.0	25.88
Dirkse Leghorn Farm, Zeeland, Michigan	SCWL	13	261.32	250.6	7.7	25.68
Drake, John W., Skillman, N. J.	SCWL	13	249.76	245.9	15.4	25.52
Experimental Pen, Farmingdale, L.I., N. Y.	SCWL	13	273.00	267.9	0.0	24.00
Foreman Poultry Farm, Lowell, Michigan	SCWL	13	242.72	228.6	15.4	27.79
Foreman Poultry Farm, Lowell, Michigan	SCWL	13	274.52	258.8	23.1	27.37
Foreman Poultry Farm, Lowell, Michigan	SCWL	13	256.96	244.7	30.8	27.11
Hendrickson, H. F. & R. G. Bridgehampton, L.I., N. Y.	SCWL	13	248.90	235.9	0.0	27.34
Hendrickson, H. F. & R. G. Bridgehampton, L.I., N. Y.	SCWL	13	252.83	242.1	0.0	26.43
Cashman Leghorn Farms, Webster, Ky.	Incross	13	264.35	254.1	7.7	25.28
Anderson, Ralph W., Hanover, Mass.	Sex Link	13	274.15	254.5	0.0	27.33
Anderson, Ralph W., Hanover, Mass.	Sex Link	13	250.59	231.2	7.7	28.28
Harco Orchards & Plty. Fr., So. Easton, Mass.	Sex Link	13	283.38	261.3	7.7	28.42
Harco Orchards & Plty. Fr., So. Easton, Mass.	Sex Link	13	249.80	230.4	0.0	28.04
Harco Orchards & Plty. Fr., So. Easton, Mass.	Sex Link	13	320.89	295.6	0.0	27.71
Harco Orchards & Plty. Fr., So. Easton, Mass.	Sex Link	13	283.59	261.8	15.4	27.71
Parks Poultry Farm, Altoona, Pa.	Sex Link	13	230.11	220.7	0.0	25.89
Parks Poultry Farm, Altoona, Pa.	Sex Link	13	238.61	224.9	0.0	26.32
Shaver, Donald McQ., Galt, Ont., Canada	Br. Mothers	13	227.75	215.2	15.4	27.00
Shaver, Donald McQ., Galt, Ont., Canada	Br. Mothers	13	208.35	195.5	23.1	27.67